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ABSTRACT

The study investigated the status of clinician services to limited- and non-English proficient (LEP/NEP) children with communication disorders. Surveys of speech/language pathologists, school districts, and professional organizations were undertaken. Results revealed the prevalence by type of communication disorders (language disorders were the most prevalent), the proportion of LEP/NEP children served by speech-language clinicians (LEP/NEP students comprised approximately 20% of the caseload), and changes in the number of LEP/NEP children needing service (an increase is noted in the last 3 to 5 years). More than half of the clinicians reported non-English language knowledge, although few possessed full fluency in another language. While evaluations were conducted in the home language, therapy was provided in English with no help from interpreters or translators. Clinicians reported that inservice training helped them provide bilingual special education, and extension of such district-level inservice is recommended. The need for resources on therapy content issues was identified. Areas of needed research were pinpointed regarding the relative benefit of therapy in English vs. the child's home language, expected outcomes of therapy, and appropriate techniques. (CL)

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COMMUNICATION DISORDERS IN LIMITED- AND NON-ENGLISH PROFICIENT CHILDREN

Linda Carpenter

May 1983

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EXECUTIVE SUMMARY

In recent years, legislation and litigation have provided a framework for providing special education and bilingual education services in the nation's public schools. Although legal mandates have defined activity in these two areas of educational practice, the intersection of bilingual and special education has been less clear.

This report documents a study which investigated the intersection of special education and bilingual education in the area of speech-language pathology services provided to limited- and non-English proficient (LEP/NEP) children. The study surveyed speech-language pathologists, school districts, the California State Department of Education, and national and state professional organizations to gather information describing current school practices and support services relative to communicatively disordered LEP/NEP children. Specific areas of focus included prevalence, clinician non-English language ability, language of instruction, professional preparation for bilingual special education, and resource availability and usage of resources by speech-language pathologists.

In addition to the surveys, a bibliography of relevant literature was compiled from searches of the ERIC, ECER/EXCEPT CHILD, and LLBA data bases; searches obtained from the National Clearinghouse for Bilingual Education; and personal library search.

Results of the study suggest the following conclusions:

- In general, special education and bilingual education intersect minimally in the area of speech-language pathology service provided to LEP/NEP children. Special education regulations seem related to current practices in speech-language pathology service to a greater extent than do bilingual education regulations.

- Prevalence of communication disorders in LEP/NEP children is difficult to estimate due to required child-count procedures, but less than 1% of district enrollments are communicatively disordered LEP/NEP children.

- A large proportion of clinicians who serve LEP/NEP children report non-English language knowledge, but few speak or understand non-English languages at full fluency levels, suggesting that clinician-reported abilities may be irrelevant to clinical practice.

- Language used for diagnosis varies depending on child language and clinician non-English language knowledge, but evaluations that are conducted in a child's home language are done either by clinicians alone or with assistance from interpreters; therapy is conducted in English.

- Most clinicians who serve LEP/NEP children have had some type of special preparation for providing bilingual special education services and preparation is typically through the work facility.

- Resources and bibliographic references available to speech-language pathologists address diagnostic issues; few resources or references offer information regarding therapy.

The report recommends:

- training of more bilingual professionals and/or paraprofessionals, particularly for non-Spanish languages;

- research regarding minimum fluency required in a non-English language to use the language professionally;

- research regarding the relative benefit of speech-language therapy conducted in English vs. the home language;

- research regarding expected outcomes of speech-language therapy with LEP/NEP children;

- research regarding appropriate and beneficial therapy techniques for remediating communication disorders in LEP/NEP children.

Appendices to the report include a copy of the questionnaire used for the survey of speech-language pathologists; full reports of school district, State Department of Education, and professional organization surveys; and the bibliography of relevant literature.

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COMMUNICATION DISORDERS IN LIMITED- AND NON-ENGLISH PROFICIENT CHILDREN

INTRODUCTION

In recent years, legislation and litigation have provided a framework for providing special education and bilingual education services in the nation's public schools. Although legal mandates have defined activity in these two areas of educational practice, the intersection of bilingual and special education has been less clear, and concern for such relationship has been the focus of some attention in the educational literature (Baca, 1980b; Figueroa, 1980; Gallegos, Garner & Rodriguez, 1980).

In the area of special education, P.L. 94-142 (20 U.S.C. § 1401) and Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794) have been the most important pieces of legislation that ensure the rights of handicapped children to a free and appropriate public education. Essentially a civil rights mandate, Section 504 demands practices that do not discriminate on the basis of handicap. Based on the Constitutional principle of equal protection, P.L. 94-142 mandates the right to education for all handicapped children; non-discriminatory assessment, classification, and placement in special education programs; individualized and appropriate education; least restrictive placement; procedural due process; and parent participation and shared decisionmaking. Parallel to these federal statutes, California's legislature has also mandated education for all handicapped children (Cal. Educ. Code § 56000 et. seq.).

Title VII of the Elementary and Secondary Education Act (20 U.S.C. § 880b), known as the Bilingual Education Act, and the judicial decisions in Lau v. Nichols, 414 U.S. § 563 (1974) and Diana v. State Board of Education, Civ. No. C-70-37 RFP (N.D. Cal., Jan. 7, 1970, and June 18, 1973) form the legal framework in the area of bilingual education. The Bilingual Education Act, based on civil rights notions of non-discrimination, encourages establishment and operation of educational programs using bilingual educational practices, techniques and methods.

The Act is permissive, not mandatory, and offers funding incentives to school districts to develop bilingual programs. Appropriations for such programs have increased since the act was passed, reflecting federal support for the use of non-English languages in public schools. Federal laws are considered minimum legal assurances, and where corresponding laws exist at the state level, the state may grant more, but not fewer, rights than those granted at the federal level. Whereas federal bilingual education legislation is permissive, California's bilingual education programs are mandatory under state law. Regarding case law, the Lau decision requires instruction in a child's primary language; and the Diana case, although settled out of court, requires non-discriminatory assessment in a child's primary language prior to special education placement.

Although legal mandates focus on special education and bilingual education separately, in cases where a child meets requirements for both handicapped and bilingual education programs, legal demands should logically intersect. Such a view has been expressed frequently by proponents of bilingual special education (Baca, 1980b; Figueroa, 1980; Gallegos, Garner & Rodriguez, 1980). Although the law has not explicitly addressed eligibility of handicapped bilingual children, it seems reasonable that "as the law mandates a 'free and appropriate' public education for all handicapped children and requires the development of individualized education programs to meet the unique needs of each exceptional child, this must certainly include bilingual education considerations for handicapped children who are linguistically and culturally different" (Gallegos, Garner & Rodriguez, 1980, p. 4). But logic aside, bilingual special education remains to be defined by law, and it has been suggested that working out the relationship between these two areas will be the challenge of the 1980's (Baca, 1980a).

In attempting to meet such a challenge, educators have generally addressed the issue as it pertains to special education classes for the handicapped (Baca, 1980b; Bryen, 1974; Figueroa, 1980; Gallegos, Garner & Rodriguez, 1980; Rodriguez, Cole, Stile & Gallegos, 1979; Sabatino, Hayden & Kelling, 1972). Although infrequently included in such

discussions, provision of remedial speech and language services to communicatively disordered limited- and non-English proficient children represents a sub-area within the realm of bilingual special education.

Under P.L. 94-142, speech-language therapy for the handicapped falls into both special education and related services categories. As explained by Dublinske and Healey (1978), ". . . if a child's primary handicap is speech or language impairment and the only specially designed instruction the child receives to meet his or her unique needs is speech-language pathology service, then the service is considered to be special education. When the child's primary disability is considered to be a handicap such as mental retardation, any speech-language pathology . . . services provided to support the child while enrolled in a special class . . . are considered related services" (p. 191). Under California law, speech language therapy is viewed only as a related service.

It is reasonable to extend eligibility for special education and related services to LEP/NEP children and such inclusion is noted by Dulay and Burt (1980). In discussing the needs of LEP students, they identified English-superior, equally limited, and non-English-superior subpopulations of LEP students in terms of relative language proficiency. Any of these types of children could exhibit disorders of speech, hearing, and/or language unrelated to their LEP status and would, therefore, require remedial speech-language services. Further, the equally-limited subpopulation, by not demonstrating superiority in either language and by underachieving in both, may be viewed as having problems using language in general; that is, they may exhibit conceptual language disorders. Such children would require "assessments to probe speech, hearing, or language disorders . . . to determine the students' needs" (Dulay & Burt, 1980, p. 20).

Workers in the field of speech-language pathology have recognized this potential involvement of communication disorders specialists in the special education process of limited- and non-English proficient

children, and have addressed the role of speech language pathologists in that regard. Glass (1979) noted that the "speech-language pathologist will be faced with the formidable task of having to provide an accurate diagnosis of the bilingual child's language abilities and then providing the child with an appropriate treatment plan" (p. 518). Although provision of therapy is alluded to in the literature, the primary role is seen as one related to differential diagnosis, that is, distinguishing language disorders from language difference. Abudarham (1980) sees such a role as exclusive, whereas others (Armstrong, 1977; Glass, 1979; Pickering, 1976) acknowledge that knowing the child's language and culture will facilitate appropriate differential diagnosis. Pickering (1976) further identified a full range of issues relative to intervention with LEP/NEP students including assessment, remediation, instructional materials, methodology, training, advocacy, and the problem of monolingual clinicians providing therapy to LEP/NEP students. But the actual implementation of therapy with LEP/NEP students is seen as essentially identical to implementation of therapy with monolingual children, if some knowledge of the child's language and culture are acquired by the clinician and if bilingual aides, paraprofessionals or translators are used during therapy (Glass, 1979; Pickering, 1976).

Emphasis on diagnosis is noted in the literature (Bryen, 1976; Dulay, Burt & McKeon, 1980; Evard & Sabers, 1979; Garcia, 1981; Matluck & Mace, 1973; Mowder, 1979, 1980; Nelson-Burgess & Meyerson, 1975; Sabatino, Kelling & Hayden, 1973; Wing, 1974) and may be related to the mandate for non-biased assessment in the child's primary language. School districts violating this mandate could stand to lose federal funding and, given our litigative history regarding discriminatory assessment practices, attention to diagnostic issues is understandable. But, clearly, provision of clinical services to LEP/NEP children involves more than assessment. Some pertinent issues include clinician preparation for providing bilingual special education services, clinician non-English language ability, relationship between clinician non-English language ability and LEP/NEP student performance, and most

appropriate language of instruction for communicatively disordered LEP/NEP children.

It has been suggested that few educators have abilities in both special and bilingual education areas (Baca, 1979; Baca, 1980b; Figueroa, 1980). In addressing the issue of desirable abilities for personnel providing bilingual special education, Baca (1980b) identified competencies in the areas of language, linguistics, assessment, instruction, culture, and interacting with parents. He further suggested that teacher training be modified to include ". . . a required course entitled working with the bilingual handicapped child. Bilingual courses should be highly recommended as electives . . . a field experience with bilingual handicapped children should be required" (p. 28).

Regarding preparation of speech-language pathologists, the California teaching credential requires bilingual-crosscultural competency, but how this requirement is interpreted by university training programs is variable. For example, until recently, one university in Southern California (Note 1) considered this competency met if a student clinician had conducted therapy with any non-Caucasian child. Within the last 2 years, requirements to meet this competency have been changed. Now student clinicians are required to take one bilingual-crosscultural course that emphasizes principles of second language acquisition. Since the California State Department of Education, Commission on Teacher Preparation and Licensing, has permitted the institution to grant credentials under both conditions, it seems reasonable to assume that variability in preparation exists and may not approximate the desirable abilities mentioned by Baca (1980b).

Further, California has recently passed an urgency statute (SB 386) requiring the development of a bilingual-crosscultural certificate for special educators who provide services to bilingual children. Requirements for the credential will include written and oral examinations to demonstrate language skills of a language other

than English; knowledge of culture and heritage; ability to perform assessments; and ability to develop appropriate educational plans, instructional strategies, and evaluation. Although the bill focuses on assessment personnel, it also provides for certification of special educators who implement individualized educational plans that require bilingual services. This bill could be potentially influential in appropriately preparing bilingual special educators; however, "it is not the intent of the Legislature . . . that possession of any certificate established by this section be a state-mandated requirement for employment or continued employment" (Cal. Educ. Code § 56363.7d). Such a requirement is left for local agencies to determine; thus, it is unclear what impact this measure will have on preparation of professionals for bilingual special education.

With regard to clinician non-English language ability, although knowledge of the child's primary language is considered important (Armstrong, 1977; Glass, 1979; Pickering, 1976), Dulay, Burt and McKeon (1980) found bilingual skills to be rare in speech-language pathologists in California. Although the Lau decision requires that education be provided in the primary language, the relationship between teacher non-English language ability and student achievement is not clear. Merino, Politzer and Ramirez (1979) found a significant relationship between teacher Spanish language proficiency and pupil achievement, whereas Bergin (1977) could neither support nor reject the notion that teacher Spanish fluency influences their pupils' Spanish language development or language arts skills. Both of these studies were conducted with non-handicapped children in bilingual classrooms, and few studies have looked at this issue as it applies to speech-language pathology.

In a rare study that directly applies this issue to speech-language pathology, Fredman (1975) investigated the influence of language of therapy on language recovery in adult polyglot aphasics. Therapy was given in Hebrew to 40 adult aphasics who had home languages other than Hebrew. The purpose of the study was to determine the effect of therapy given in Hebrew on the patient's home language.

Results indicated that therapy in Hebrew had a positive effect on the home language. While these findings might suggest that providing therapy in English to LEP/NEP communicatively disordered children will be beneficial in remediating their language problems, no studies have directly investigated this issue as it applies to LEP/NEP children. Further, the Fredman study consisted only of the experimental group: No groups were used that controlled for the relative benefit of therapy in the patients' primary vs. secondary languages. In addition, the nature of language acquisition might be very different from language recovery and results of a study with adult aphasics might, therefore, not generalize to apply to young language-disordered children.

In a review of bilingual education practices in California, Berke (1982) pointed out that "while the state's bilingual education legislation prescribes in great detail how students are to be identified and assessed, the qualifications their teachers must have, the proportion of students that shall exist in classrooms, etc., almost no prescriptions regarding curriculum exist in California . . . no widely-held linguistic philosophy, other than the self-evident virtue of bilingualism, is apparent" (p. 30). Essentially, California's approach to bilingual education is a do-whatever-works orientation and, although "intentions are good . . . educational goals based on sound pedagogy and understandings of linguistics are needed" (Berke, 1982, p. 36).

Although Berke was describing non-handicapped bilingual education, her findings seem to apply to special educational services provided to LEP/NEP students as well. During interviews with school districts in the Los Angeles area, personnel could not articulate consistent approaches to communicatively disordered LEP/NEP children, and district personnel routinely reported that approaches to instruction varied from child to child. In the area of speech-language pathology, such free-wheeling approaches to instruction may be related to lack of empirical data regarding relative efficacy of therapy in English vs. the child's primary language as well as the pedagogical and linguistic issues mentioned by Berke (1982).

A final issue of importance relates to the actual numbers of children who might require bilingual special education services. Although it has been suggested that increasing numbers of handicapped LEP/NEP students require special education services (Glass, 1979), exact magnitude of the problem is unclear, particularly with regard to communicatively disordered pupils. In a recent review of the literature related to the prevalence of communication disorders, Healey, Ackerman, Chappell, Perrin and Stormer (1981) point out that census of the handicapped is inexact:

> Accurate documentation on the size of the population requiring services is unavailable. Estimates of the number of handicapped individuals vary widely depending on the definitions used, the data collection methods used and the location and the age range of the population investigated. A major complication arises from the fact that definitions of handicaps are not consistent among service agencies. (p. 2)

Further, prevalence estimates are typically reflections of people receiving, as opposed to needing, services.

Prevalence of types of communication disorders is similarly difficult to estimate. The categories of language, articulation, fluency, voice, and hearing disorders typically used by speech-language pathologists in clinical practice are not necessarily used by researchers to gather prevalence data. Federal and state legislation define disorder categories for purposes of data collection and funding. P.L. 94-142 defines communicatively handicapped in terms of deaf, hard of hearing, and speech impaired categories and this last area includes disorders such as fluency or stuttering, articulation, language, and voice (Dublinske & Healey, 1978). Similarly, California's Master Plan for Special Education classifies programs for the communicatively handicapped to include deaf, deaf-blind, severely hard of hearing, severe language handicapped, and language and speech (California State Board of Education, 1974). Clearly, determining prevalence of disorder categories used by speech-language pathologists in program planning may be difficult to determine from published reports.

Language disorders exist as a definitive category for speech-language pathologists, but such problems are not recognized by survey researchers or by government agencies as a distinct handicapping condition. Language impairment may thus be subsumed under the general category of speech disorders or under other categorical headings such as mental retardation, learning disability, or emotional disturbance. Prevalence of language disorders per se is, therefore, not known but as a pure category are thought to be rare (Healey et al., 1981).

Such notions of prevalence in the category of language impairment are in contrast to the concerns of speech-language pathologists. Trends in the field of speech-language pathology in recent years show a shift from emphasis on speech problems to emphasis on language and its disorders. Such shift may be seen by scanning the professional literature over the last 20 years; a more simplistic approach would be to review typical text books used in training speech language pathologists.

In the 1960's one of the most widely used introductory texts was Van Riper's Speech Correction: Principles and Methods (1963) which emphasized speech development, disorders of speech, and treatment of speech impairments. A more recent text (Byrne & Shervanian, 1977) emphasizes communication and its disorders, structure and function of language, and language acquisition and deficits. Similarly, the Handbook of Speech Pathology (Travis, 1957) did not include a section specifically devoted to language, whereas the Handbook of Speech Pathology and Audiology (Travis, 1971) addresses that distinct category. Such shifts probably relate to research efforts in linguistics and psycholinguistics, such as the work of Chomsky (1957) and Brown (1973) among others.

The point here is that to determine exact prevalence data regarding communicative disorders is difficult at best, and different sources will yield different data based on different categories. For these reasons, speech-language pathologists will probably report prevalence differently than will school districts, since districts are

constrained by child count criteria whereas clinicians categorize according to the communication behaviors exhibited by a child.

Disorders of articulation, fluency and voice have been counted as separate categories, although current federal and state child count classifications do not require such distinctions. As a distinct class of speech disorders, articulation problems are considered the most frequent, followed by voice and fluency impairments. Voice and fluency disorders, however, generally show low prevalence and occur at approximately the same rate: Some surveys rank voice impairments as occurring more frequently than fluency disorders, while other surveys reverse the rank order.

Hearing disorders are usually categorized separately from speech-language problems. However, since different methods of data collection and different age ranges are used in estimating prevalence than are used regarding speech disorders, it is difficult to rank hearing impairment on the same prevalence scale with other communication disorders. Although it is considered the single most chronic disability in the United States (Healey et al., 1981), prevalence is generally low and might fit into a rank ordering of all disorders of communication at approximately the level of fluency and voice disorders.

Applying the notion of prevalence of communication disorders to LEP/NEP children is equally problematic. Language minority children are counted by school districts in compliance with bilingual education regulations, but child count on the basis of language background is not required under P.L. 94-142. The difficulty of getting at the intersection of bilingual and special education in this regard is usually handled by assuming that persons from non-English backgrounds exhibit disorders in proportions identical to the overall population. No evidence exists to contradict such an assumption; thus, approximately 10% of the United States population is thought to have some type of speech, language, or hearing problem (HEW, 1976, reported in Healey et al., 1981), and 10% is also the usual estimate of prevalence of

communication disorders in language minority groups (ASHA, 1982). Under such reasoning, prevalence by type would also mirror the ranking suggested for the population at large, with articulation disorders being most prevalent, followed by hearing, fluency, and voice in variable order. Prevalence of language disorders unrelated to LEP status would rank high, if reported by speech-language pathologists, or low, if reports are based on typical child count data.

Given such background regarding bilingual special education, the present study was designed to investigate the intersection of special education and bilingual education in the area of speech-language pathology service provided to LEP/NEP children. Information gathered will more clearly describe current practices in the southern California schools relative to communicatively disordered LEP/NEP children.

The study investigated several issues including prevalence of communication disorders in LEP/NEP children, clinician non-English language ability, languages used in diagnosis and therapy, clinician preparation to provide bilingual special education services, resources available to assist clinicians in serving LEP/NEP communicatively disordered children, and research results that might help speech-language pathologists make clinical decisions regarding these children.

These issues were addressed in a number of ways. To determine current practices, speech-language pathologists in southern California were surveyed by mail. In addition, selected school districts in the Los Angeles area were surveyed by telephone to obtain official reports regarding the numbers of communicatively disordered LEP/NEP children as well as the types of programs offered to them. The districts were also surveyed regarding the numbers of bilingual clinicians serving LEP/NEP students as well as the kinds of support offered by the districts to clinicians to ensure effective management of those children. To further determine the kinds of resources available to clinicians, personnel in the California State Department of Education and in selected state and national professional organizations were interviewed. Finally, a bibliographic search was done to identify relevant

literature that clinicians might turn to for additional assistance in meeting the demands of providing speech and language service to communicatively disordered LEP/NEP children.

Full reports of the school district and professional organization surveys can be found in Appendix B and C, and the bibliography of relevant literature can be found in Appendix D. However, some information obtained in interviews and in literature search are included in the results of the study.

METHOD

Questionnaire

This study was conducted to gather information regarding communicatively disordered LEP/NEP children served in the schools as well as clinician preparedness to provide such service. A questionnaire was designed to survey speech-language pathologists regarding the following issues with respect to the children served:

1. How many LEP/NEP communicatively disordered children are served by speech-language clinicians in the southern California public schools?
2. What is the proportion of LEP/NEP communicatively disordered children relative to the clinicians' total caseload?
3. What types of disorders do communicatively disordered LEP/NEP children exhibit?
4. How do disorders in LEP/NEP children compare to disorders noted in non-LEP/NEP children in terms of prevalence by type?
5. In what language are communication disorders in LEP/NEP children manifested?
6. What home languages are represented in the communicatively disordered LEP/NEP children?
7. What do clinicians perceive as the primary needs of speech-language professionals who serve LEP/NEP communicatively disordered children?

8. What is the non-English language background of clinicians serving LEP/NEP children? Specifically, what languages other than English do clinicians know, what are their ability levels in those languages, and where were other languages learned?

9. What languages do clinicians use for diagnosis and remediation?

10. What types of preparation have clinicians received to provide bilingual special education services?

In addition, clinician demographic data were gathered including work setting; job title; highest academic degree; credential/licensure/certification status; and, if employed in the schools, grades served. All items pertained to the 1981-82 school year. A copy of the questionnaire appears in Appendix A.

Sampling Procedures

Since the questions posed in this study address the current practices in the provision of speech-language pathology services to LEP/NEP communicatively disordered children in the schools, it was desirable to obtain a sample composed of speech-language pathologists who work in that setting. The most desirable sampling procedure would have been to randomly select a group of speech-language pathologists from the population who provide services in the California public schools. School districts and the State Department of Education were not inclined to release a listing of such a population. Thus, alternative sampling procedures were required.

The procedure used targeted members of the state professional organization to ensure that respondents would be speech-language pathologists. Further, selection from special interest groups within the state organization that focus on communication disorders in children was used to obtain a sample who provided services in the schools.

In accordance with such a rationale, a list of 1,179 speech-language pathologists was obtained from the California Speech-

Language-Hearing Association and included members from Districts 6, 7, 8 and 9 who registered with the Association in Divisions B and F. Districts 6, 7, 8 and 9 cover southern California from Santa Barbara to San Diego with the following breakdown by District:

District 6: Santa Barbara, Ventura, and part of Los Angeles Counties;

District 7: Kern and part of Los Angeles Counties;

District 8: Orange County;

District 9: Inyo County and the remainder of southern California.

Divisions B and F include members who expressed interest in childhood communication disorders with the following breakdown by Division:

Division B: Education and Habilitation of Children with Severe Language Disorders;

Division F: Language, Speech, and Hearing Services in the Schools.

In an effort to sample all subjects in the target population, questionnaires were sent to all names on the list. However, 347 of the entries were duplicates due to overlap in Division affiliation. Thus, the original sample actually included 832 speech-language pathologists. Three questionnaires were returned by persons other than those who received them: Three people who received duplicates completed one and passed the other on to colleagues to fill out and return. Therefore, although 1,179 questionnaires were sent out in the initial mailing, only 835 people comprised the survey sample.

The questionnaires were mailed during the week of November 8, 1982, and responses were requested by December 1. On December 3, reminder letters were sent to the people who had not returned questionnaires by that date and responses were requested by December 15. No further follow-up was attempted. By December 31, 386 questionnaires

(46.23%) were returned and 329 (39.40%) contained data usable for analysis.

Questionnaires that were returned but not included in the data analysis were rejected for a variety of reasons. Eighteen (18) questionnaires contained incomplete information and could not be coded for analysis. Five were returned by the post office as undeliverable, and 34 were returned unanswered. In this last group, respondents were administrators, supervisors, or university instructors and did not carry a caseload; retired, on leave, working outside of the field, or unemployed; or reported non-applicable work settings within the field or no LEP/NEP children on their caseloads.

Sampling procedures could be expected to produce a biased sample in a number of ways. First, mail surveys tend to produce biased samples in that persons interested in the subject matter might be more likely to respond than uninterested persons. For this project, such an expected bias might result in greater return rates from clinicians involved with and concerned about communicatively disordered LEP/NEP children. If such bias is found in this study, generalizing findings to all public school speech-language pathologists may be problematic; but responses may be appropriately interpreted as descriptive of current practices with LEP/NEP children.

Second, response rate is a persistent problem in survey research. Although 50 percent has been suggested as adequate for data analysis (Babbie, 1973), it is rare to achieve such returns. The close to 40% response rate in this study is considered adequate to describe current practices in speech-language service provided to LEP/NEP children in the southern California public schools.

Finally, the entire sample receiving questionnaires in this study, and all but 3 respondents, were members of the state professional organization of speech-language-hearing specialists. Membership is completely voluntary, not required for public school employment, and affiliation might suggest that the overall sample represents a unique

subgroup of professionals within the field of speech-language pathology. Depending on the other characteristics of the sample revealed by the questionnaire, it might be inferred that respondents represent a special subgroup of speech-language pathologists and not necessarily all professionals in the field. Responses might reflect a unique level of preparedness, and for this reason, as well as those previously mentioned regarding sample bias in survey research, findings here must be interpeted cautiously.

Sample Characteristics

Overall sample. Characteristics of the total sample are shown in Table 1. Work settings reflected in initial responses included public schools, private schools, hospitals, clinics, universities, and private practice. Few respondents indicated working in settings other than public schools and the data were collapsed into School/Not School categories. As anticipated from the sampling procedure, most respondents worked in school settings as speech language specialists or aphasia classroom teachers. That the majority of clinicians provided service at the elementary level was expected, since in the field at large most service is provided in the primary grades (Eisenson & Ogilvie, 1971).

Although most respondents worked as speech-language specialists in a school setting, the only prerequisite for such work is some type of California teaching credential. The typical credentials for speech-language pathologists, earned as a result of specialized training in the field, are the Communication Handicap Credential or the Clinical Rehabilitative Services Credential with or without authorization to teach an aphasia/severe language handicap special day class. Although not typical, speech-language service can also be provided in schools if clinicians hold some type of special education credential or a regular education credential in combination with special education. That the majority of respondents held the typical credential suggests that they trained specifically as speech-language pathologists. Further, a master's degree, California licensure, and certification from the

Table 1: Characteristics of the Total Sample (N = 329)

	n	%
Work Setting		
School Setting	310	94.22
Not School Setting	19	5.78
Job Title		
Speech-Language Specialist	248	75.38
Aphasia Classroom Teacher	59	17.93
Administrator/Supervisor	22	6.69
Highest Academic Degree		
BA, BS	43	13.07
MA, MS, MED	281	85.41
Ph.D., Ed.D	5	1.52
School Credential		
Speech-Language	296	89.97
Special Education	18	5.47
Regular Education	15	4.56
State Licensure		
Speech Pathology	238	72.34
Audiology	0	-----
Audiology and Speech Pathology	10	3.04
None	81	24.62
Certification (ASHA)		
Speech Pathology	197	59.88
Audiology	1	.30
Speech Pathology and Audiology	9	2.74
None	122	37.08
Grades Served		
Primary Only	144	43.77
Secondary Only	29	8.82
Primary and Secondary	132	40.12
No School Service	24	7.29
Language Other Than English		
Spanish	124	37.69
Other, not Spanish	37	11.24
Spanish and Other	32	9.73
English Only	136	41.34

American Speech-Language-Hearing Association are not requirements for their jobs. Yet, most clinicians earned master's degrees and held state licensure, and more than half were also certified by ASHA.

Because respondents were professionally prepared beyond the basic requirements for their jobs, it might be inferred that the sample represents a group of speech-language specialists who are different in some ways from other workers in the field. Results obtained from this survey might, therefore, represent the optimum preparedness of speech-language pathologists providing services to communicatively disordered LEP/NEP children. If such is the case, cautious interpretation suggested earlier will certainly need to be exercised.

Non-English language abilities in the total sample is an interesting variable. Although the terms "speak," "use," "know," "ability," and "proficiency" may hold variable meanings for some readers, in this survey they are used interchangeably to reflect clinician self-reports of non-English language status. The following questionnaire item was used to determine whether respondents know languages other than English:

"Can you speak any language(s) other than English?

a. yes (specify) _____

b. no _____"

Responses to this question showed that less than half the respondents reported speaking only English and the majority of respondents indicated speaking languages other than English. Respondents were further asked to specify their non-English languages; and, for coding purposes, responses were categorized as "Spanish," "Other," and "Spanish and Other." Most clinicians indicated knowledge of Spanish: By combining "Spanish" with "Spanish and Other," it can be seen that close to half of the sample indicated Spanish knowledge. Similarly, by combining "Other" with "Spanish and Other," approximately one-fifth of the sample indicated non-English, non-Spanish language knowledge.

Given such a relatively high proportion of non-English language knowledge, particularly for Spanish, how such knowledge interacts with respondents' professional activity with LEP/NEP children becomes an important issue and will be pursued later in this report.

In general, the overall sample were primarily speech-language pathologists employed in a public school setting and serving the elementary grades. Respondents were predominantly master's level professionals who held speech-language public school credentials, California licensure in speech pathology, certification in speech pathology from the American Speech-Language-Hearing Association, and membership in the California Speech-Language-Hearing Association. Most respondents indicated knowledge of some language other than English.

Clinicians serving LEP/NEP children. One issue addressed by the questionnaire involved the number of clinicians serving communicatively disordered LEP/NEP children. The following questionnaire item was used to determine whether respondents served LEP/NEP children:

> "Did you provide clinical service to limited-English speaking/ non-English speaking children?
>
> a. Spanish _____ number of cases _____
>
> b. other languages (specify) _____ number of cases _____
>
> _____ number of cases _____
>
> c. no such service provided _____"

For coding purposes, responses were categorized as "served LEP/NEP" and "did not serve LEP/NEP." By selecting subgroups based on responses to this question, it was possible to identify characteristics of respondents who did and did not work with LEP/NEP children. Such characteristics are shown in Table 2.

More than two-thirds (67.5%) of the respondents served limited- and non-English proficient children; 32.5% did not provide such service. Such proportions indicate a biased sample, since most respondents served LEP/NEP children and as a group probably represent

clinicians who are involved in and concerned about speech-language services provided to those children. As mentioned earlier, such bias was expected due to the nature of mail surveys and the sampling procedures used in this study. Although results may, therefore, not be representative of all speech-language pathologists, findings may be descriptive of clinicians who serve LEPNEP children in the public schools.

Table 2: Characteristics of Clinicians Who Did and Did not Serve LEP/NEP Children

	Served LEP/NEP (n=222)		Did not Serve LEP/NEP (n=107)	
	n	%	n	%
Work Setting				
School Setting	209	94.14	101	94.39
Not School Setting	13	5.86	6	5.61
Job Title				
Speech-Language Specialist	186	83.78	65	57.94
Aphasia Classroom Teacher	29	13.06	30	28.04
Administrator/Supervisor	7	3.15	15	14.02
Highest Academic Degree				
BA, BS	32	14.41	11	10.28
MA, MS, MED	186	83.78	95	88.79
Ph.D., Ed.D.	4	1.80	1	.93
School Credential				
Speech-Language	206	92.79	90	84.11
Special Education	7	3.15	11	10.28
Regular Education	9	4.05	6	5.61
State Licensure				
Speech Pathology	158	71.2	80	74.8
Audiology	0	----	0	----
Audiology and Speech Pathology	5	2.3	5	4.7
None	59	26.6	22	20.6
Certification (ASHA)				
Speech Pathology	131	59.00	66	61.68
Audiology	0	----	1	.93
Speech Pathology and Audiology	5	2.25	4	3.74
None	86	38.74	36	33.64
Grades Served				
Primary Only	105	47.29	39	36.45
Secondary Only	16	7.21	13	12.15
Primary and Secondary	86	38.74	46	42.99
No School Service	15	6.76	9	8.41
Language Other Than English				
Spanish	97	43.7	27	25.23
Other, Not Spanish	25	11.3	12	11.21
Spanish and Other	25	11.3	7	6.54
English Only	75	33.7	61	57.01

In spite of this bias toward clinicians serving LEP/NEP children, the two subgroups were similar on all characteristics except knowledge of languages other than English. More clinicians who provided service than who did not reported non-English language knowledge. Further, of the clinicians who served LEP/NEP children, more than 50% reported some Spanish knowledge.

Data Analysis

This study surveyed speech-language pathologists. The unit of analysis used in reporting results, therefore, is the number of clinicians responding to questionnaire items. Since the basic questions posed in this study related to current practices with LEP/NEP vs. non-LEP/NEP children, results are reported in terms of responses from clinicians who provided such service compared to responses from clinicians who did not provide such service.

Further, results are reported as frequencies, percentages, or proportions. Since the study was designed to be descriptive in nature, statistical tests were not performed on the data.

Finally, it is important to point out that in many instances response categories were not mutually exclusive. Consequently, numbers do not necessarily sum to 100 percent. In cases where such a situation prevails, tables are appropriately marked.

RESULTS AND DISCUSSION

Prevalence of Communication Disorders in LEP/NEP Children

Prevalence is the "number of people in a total population with a particular common characteristic" (Healey, Ackerman, Chappell, Perrin & Stormer, 1981, p. 1). A number of questionnaire items were used to determine prevalence of communication disorders in LEP/NEP children.

> "In the 1981-1982 school year, or during the last 12 months, how many children were included in your total caseload? _____"

"Did you provide clinical service to limited-English speaking/non-English speaking children?

a. Spanish _____ number of cases _____

b. other languages (specify) _____ number of cases _____

_____ number of cases _____

c. no such service provided _____"

Based on responses to these questions, it was found that all respondents served a total of 14,149 children, 2,730 (19.20%) of whom were limited- or non-English proficient.

Prevalence by child language group can be estimated based on the second question stated above. Of the 2,730 LEP/NEP students, 82.71% were from Spanish language backgrounds, 13.70% were from Asian language backgrounds, and 3.59% were from other language backgrounds. These groups amounted to 15.96% (Spanish), 2.64% (Asian), and .69% (other) of the total population served. Prevalence of communication disorders in LEP/NEP children by child language group is shown in Table 3.

Clinicians were not asked total LEP/NEP enrollment in their districts against which prevalence of communication disorders in those children could be estimated. Consequently, the best conclusion suggested by these data is that almost 20% of the children served by respondents were limited- or non-English proficient.

Table 3: Prevalence of Communication Disorders in LEP/NEP Children

	n	% of total	% LEP/NEP
Children served by all respondents	14,149	100.0	
LEP/NEP children served	2,730	19.29	100.00
LEP/NEP Spanish	2,258	15.96	82.71
LEP/NEP Asian	374	2.64	13.70
LEP/NEP Other Languages	98	.69	3.59

Recognizing that these data may be a reflection of the biased nature of the sample and not a true picture of prevalence, data were also obtained from interviews with district personnel (see Appendix B). District level data suggested that language minority enrollments varied from approximately 4% to approximately 21% of total enrollments, and that LEP/NEP communicatively disordered children comprise less than 1% of the total enrollment in any district. Further, LEP/NEP communicatively disordered children represented from approximately 1% to approximately 6% of the LEP/NEP enrollments in any district.

These data came from official district reports and they may reflect accurate numbers of communicatively disordered LEP/NEP children. If such is the case, then the magnitude of need alluded to in the literature may not represent reality. However, these data were based on child count reports and might, therefore, underestimate actual numbers due to the categorical problems discussed in the introduction to this report. Indeed, one person interviewed in the district survey suggested that child count regulations prohibit counting children in more than one category. Typically, children are counted under the category of their primary handicapping condition. Thus, if a LEP/NEP child is diagnosed as learning disabled and communicatively disordered, and the child receives services from the resource specialist and from the speech-language pathologist, the learning problems are probably considered the primary handicapping condition and the child is counted in the learning disabilities, not the communication disorders, category.

Although the prevalence issue is difficult to clarify, it seems that the magnitude of the problem in terms of numbers of children served may not be as extreme as suggested in the literature, but may be larger than child count numbers suggest.

Prevalence by disorder type. Whereas data derived from the survey of speech-language pathologists cannot accurately address the overall prevalence issue, findings can address the issue of prevalence by

disorder type since subcategories of communication disorders represent meaningful classifications to speech-language pathologists. The following questionnaire items were used to determine prevalence of disorder by disorder type.

"What types of disorders did you identify in your total caseload?

a. language disorders _____ number of cases _____

b. articulation disorders _____ number of cases _____

c. fluency disorders _____ number of cases _____

d. voice disorders _____ number of cases _____

e. hearing disorders _____ number of cases _____"

"What types of disorders did you identify in your limited-English speaking/non-English speaking caseload?

a. language disorders _____ number of cases _____

b. articulation disorders _____ number of cases _____

c. fluency disorders _____ number of cases _____

d. voice disorders _____ number of cases _____

e. hearing disorders _____ number of cases _____"

Table 4 shows prevalence of disorders in LEP/NEP and non-LEP/NEP children served by respondents. For both groups, language disorders were the most prevalent, followed by articulation, fluency, hearing, and voice disorders. Rankings by disorder are similar for LEP/NEP and non-LEP/NEP children and follow typical rankings found in national data. Further, the categories listed in this study are apparently meaningful to speech-language pathologists to classify children. Finally, that language disorders predominate for both groups of children underscores the emphasis on language impairment in the profession.

Table 4: Prevalence of Communication Disorders by Type of Disorder*

	LEP/NEP (n=2,730)		Non-LEP/NEP (n=11,419)	
	n	%	n	%
language	1,613	59.08	6,354	55.64
articulation	934	34.21	4,180	36.61
fluency	164	6.01	615	5.39
hearing	122	4.47	594	5.20
voice	77	2.82	397	3.48

*Total numbers within each subgroup do not match caseload numbers reported in Table 3 and percentages exceed 100% because of multiple disorders, such as combined language and articulation problems in one child.

Although the LEP/NEP and non-LEP/NEP groups are similar, the high proportion of language disorders in the LEP/NEP children may reflect not only clinician concern for language disorders in general, but also requirements to qualify a LEP/NEP child as eligible for clinical speech and language service as well as a specific type of LEP/NEP child. In a general sense, a child must exhibit a disorder in both languages to qualify for service. Essentially, this means that disorders must be unrelated to LEP/NEP status. In the case of language problems, children served might be the equally-limited subpopulation described by Dulay and Burt (1980), and may constitute the major population of concern for current-day language-oriented clinicians. Further, other subpopulations of LEP/NEP children may exhibit disorders of communication that are unrelated to their LEP/NEP status and that fall into the speech or hearing categories. They would thus qualify for service whether both English and the primary language were disordered or not.

Districts were also surveyed in an effort to gather more official data regarding prevalence by disorder type. However, since child count procedures do not demand specifying type of disorder, definitive information was not available at the district level.

In summary, regarding prevalence by disorder type, if one uses categories that represent a meaningful classification scheme for speech-language pathologists, then LEP/NEP and non-LEP/NEP children seem to demonstrate the same types of disorders, at the same frequency, and in the same rank order.

Proportion of LEP/NEP children. Another issue posed in this study, and related to prevalence, addresses the question of numbers of clinicians serving LEP/NEP children. As reported earlier, 67.5% of the respondents served LEP/NEP children, but the question arises regarding what proportion of a clinician's caseload is made up of such students. If a few clinicians served all LEP/NEP students, implications for clinician preparation might be different than if LEP/NEP children represent only a small part of the caseload of many clinicians.

To answer this question, the following questionnaire items were used:

"In the 1981-1982 school year, or during the last 12 months, how many children were included in your total caseload?
_____"

"Did you provide clinical service to limited-English speaking/non-English speaking children?

a. Spanish _____ number of cases _____

b. other languages (specify) _____ number of cases _____

c. no such service provided _____"

Proportions of LEP/NEP cases in a clinician's total caseload were derived for reported child languages and results were grouped into percentage categories. For example, clinicians reporting from 1% to 5%

of their caseload as Spanish LEP/NEP were grouped together; clinicians reporting from 1% to 5% of their caseload as Asian LEP/NEP were grouped together; and so on. Using this grouping scheme, a clinician might serve LEP/NEP students but not serve, for example, Asian LEP/NEP students. As shown in Table 5, for all language groups, LEP/NEP students were a small part of clinicians' total caseloads. Essentially, clinicians did not serve only LEP/NEP children; rather, they were distributed in small numbers over a larger number of clinicians.

Although it is conceivable that a clinician could go through an entire professional life and never see a LEP/NEP child clinically, that most clinicians who do serve LEP/NEP students serve at least a few of these children suggests that potentially all clinicians should be prepared to provide such clinical service. Such an expectation may place extreme demands on clinician preparation programs both at the pre- and in-service levels, but may also underlie the bilingual-crosscultural credential requirements in California.

Changes in numbers of LEP/NEP children needing service. Also related to the prevalence issue is the notion that numbers of LEP/NEP children needing special services are increasing. Clinicians were asked the following question to determine if and how demand for service has changed:

> "Have you noted a change in the number of limited-English speaking/non-English speaking children in need of speech-language pathology service in the past 3 to 5 years.
>
> a. increased need noted _____
>
> b. decreased need noted _____
>
> c. no change in need noted _____"

Table 5: Percentage of Clinicians Serving LEP/NEP Students by Student Language and Proportion of LEP/NEP Cases in Total Caseload

Proportion of LEP/NEP Cases in Total Caseload	Spanish		Asian		Other	
	n	%	n	%	n	%
0 (no cases)	14	6.83	129	62.93	183	89.27
1-5%	43	20.98	47	22.93	14	6.83
6-10%	32	15.61	19	9.27	2	.98
11-15%	28	13.66	3	1.46	3	1.46
16-20%	12	5.85	3	1.46	1	.49
21-25%	21	10.24	2	.98	0	0
26-30%	9	4.39	0	0	2	.98
31-35%	6	2.93	1	.49	0	0
36-40%	5	2.44	0	0	0	0
41-45%	7	3.41	0	0	0	0
46-50%	5	2.44	0	0	0	0
51-55%	2	.98	0	0	0	0
56-60%	3	1.46	0	0	0	0
61-65%	1	.49	0	0	0	0
66-70%	3	1.46	0	0	0	0
71-75%	1	.49	0	0	0	0
76-80%	4	1.95	0	0	0	0
81-85%	1	.49	0	0	0	0
86-90%	1	.49	0	0	0	0
91-95%	3	1.46	0	0	0	0
96-100%	4	1.95	1	.49	0	0

As shown in Table 6, clinicians have noted an increase in the number of LEP/NEP children in need of speech-language pathology service in the last 3 to 5 years. Such perceived increases probably reflect a combination of factors such as changes in clinician awareness of the special needs of these children, changes as a result of legislative mandate, and changes as a result of recent immigration patterns of language minority people. If these perceived increases are real, then the need for adequately preparing clinicians to provide service to LEP/NEP children becomes even more crucial.

Table 6: Clinicians Reporting Change in Number of LEP/NEP Children in Need of Speech-Language Pathology Service in the Last 3-5 Years

	n	%
increased need	147	66.22
decreased need	10	4.51
no change in need	54	24.32
no answer	11	4.95

Two districts that participated in the school district interviews provided information relevant to changes in numbers of children needing service. In one district, LEP/NEP students comprised 9% of total district enrollments in the 1979-1980 academic year. As of the Spring of 1982, those students comprised 17.5% of district enrollments. In the other district, Asian, Native American, and Hispanic children comprised 48.8% of total district enrollment in the Fall of 1979. As of the Fall of 1981, those students comprised 55.5% of district enrollments.

Although it appears that numbers of language minority students are increasing, neither district had information regarding similar increases in communicatively disordered LEP/NEP children. It seems, however, that if the communicatively disordered population remains a

constant proportion of the language minority enrollments in a district, then as language minority enrollments increase, numbers of communicatively disordered LEP/NEP children will increase as well. This might be the type of increase referred to in the literature, although districts could not comment on such possibility.

Language of disorder and clinician ability to judge disorders. Another question posed in this study related to the language in which communication disorders are manifested in LEP/NEP children and the following questionnaire item was used to gather this information:

> "Some people feel that communication disorders in limited-English speaking/non-English speaking children will be noted in both languages, whereas others feel that disorders will be noted in only one language.
>
> a. Can you judge communication disorders in a language other than English?
>
> 1. yes _____ 2. no _____
>
> In your experience when a limited-English speaking/non-English speaking child has a communication disorder, in which language does the disorder occur? (Check all that apply)

	home language	English	both	Unable to Judge
b. language	_____	_____	_____	_____
c. articulation	_____	_____	_____	_____
d. fluency	_____	_____	_____	_____
e. voice	_____	_____	_____	_____"

Respondents believed that disorders in LEP/NEP children would be manifested in both languages, as shown in Table 7. Such belief probably reflects reality for these clinicians, a reality influenced by the general requirements for qualifying a child for service that demand disorder in both English and the primary language. But closer inspection of Table 7 raises several other interesting issues. If disorders must be exhibited in both languages for a child to qualify for service, then all disorder types should occur 100% of the time in

both languages. That clinicians judged disorders to occur in both languages less than 100% of the time raises questions regarding subtleties in interpretation of qualification regulations or variations in interpretation among districts.

Table 7: Percentage of Clinicians Judging Language of Disorder in LEP/NEP Children

	Disorder Type			
	Language	Articulation	Fluency	Voice
Home Language	6.3	5.0	3.2	2.7
English	.9	7.0	3.2	.5
Both	87.8	70.7	60.4	60.8
Unable to Judge	4.1	9.9	14.9	10.8
No Answer	.9	5.4	25.2	18.5

Indeed, some districts follow this regulation strictly and, therefore, admit to speech-language service only children who are equally limited in English and in their primary language or children who can be shown to have other disorders of speech in both languages. Other districts only admit children to speech-language service who are fluent in English. Such a child may have spent some time in an ESL or other bilingual education program to gain English skills and might thus be seen by the speech-language pathologist for speech problems in either the home language or in English.

Further, that articulation disorders are believed to occur more frequently in English than in the home language may reflect clinician familiarity with the English phonological code and expected acquisition sequences, but limited and/or lack of knowledge about the sound systems and expected acquisition sequences of other languages. Such an interpretation suggests that clinician preparation might include training in

normal language and speech acquisition for languages other than English. Also, relatively low responses of "unable to judge" and "no response" with reference to language disorders as opposed to higher responses for the disorders of speech may reflect not only requirements to qualify a child for service under which clinicians must operate, but generalized clinician focus on language vs. speech problems as well. In addition, English production is characterized by basal fluency levels and vocal quality production expectations and it is not unreasonable to assume that other languages would also have such characteristics. Whether these basal speech features are the same as for English or unique to specific other languages is unknown, since most non-English language research has focused on language issues such as phonological, syntactic and semantic code acquisition and performance and little research has been done to identify basal speech characteristic expectations. Clinicians are trained to recognize such features relative to English, but applying English standards to other languages may not be appropriate. It seems that basic research in this area and dissemination of results to clinicians serving LEP/NEP communicatively disordered children would be beneficial in helping clinicians judge disorders in those children.

Such interpretation notwithstanding, most clinicians who provided service to LEP/NEP students felt able to judge communication disorders in languages other than English, as shown in Table 8. These data were derived from the first part of the questionnaire item stated above, and the question referred to all communication disorders in general. It is interesting to note the differences between clinician reported ability to judge overall communication disorders (Table 8) and reported ability to judge specific language disorders vs. other disorders of communication (Table 7). It may be that on a philosophical level clinician focus on communication in its broad sense, but on a practical level, when confronted by a specific case, their focus narrows to categorical judgments.

Table 8: Percentage of Clinicians Able to Judge Communication Disorders in Languages Other Than English

able to judge		unable to judge	
n	%	n	%
137	61.7	85	38.3

Influence of bilingual education programs on speech-language service. The presence of bilingual education programs in a school site might influence the amount of service a speech-language pathologist provides to communicatively disordered LEP/NEP children. The following questionnaire item was used to determine if more clinicians provided service to LEP/NEP students in the presence of a bilingual education program at the school site:

"Does your school district have a bilingual education program?

a. self-contained classroom with full-time bilingual teacher _____

b. students seen outside of regular class by bilingual teacher on a part-time basis _____

c. English-as-a-second language class _____

d. no such program available _____"

If a clinician checked any of the first 3 response categories, responses were coded "bilingual education." If "no such program available" was checked, responses were coded as "no bilingual education."

As shown in Table 9, proportionately more clinicians did than did not serve LEP/NEP children in the presence of a bilingual education program. Further, of the clinicians who served LEP/NEP children, more did so when a bilingual education program existed at the school site then when it did not.

Table 9: Percentage of Clinicians Serving LEP/NEP Children by Presence of Bilingual Education Program (n=308 respondents)

	Served LEP/NEP (n=207)	Did Not Serve LEP/NEP (n=101)
Bilingual Education	61.0% (188)	26.9% (83)
No Bilingual Education	6.2% (19)	5.8% (18)

Numbers in parentheses indicate raw frequencies.

It might be further argued that different types of bilingual programs differentially influence service levels. For example, presence in a school of a self-contained classroom with a full-time bilingual teacher could either increase or decrease amount of speech language pathology service. A full-time teacher might be more aware of differences in students and, therefore, be better able to make appropriate referrals for remedial speech and language service. If such were the case, larger numbers of clinicians would be expected to provide service. Conversely, a full-time bilingual teacher might be less inclined to refer children for special service, possibly due to belief that a bilingual class would be the most beneficial placement for a non- or limited-English language child. Under such a condition, fewer clinicians would be expected to provide service. As shown in Table 10, although more clinicians served LEP/NEP children in the presence of self-contained bilingual education classrooms, the differences between program types were slight.

Apparently, presence of any bilingual program influences speech and language service, but specific types do not. It seems that fostering a cooperative working relationship between the bilingual education specialists and the speech-language specialists might contribute to overall education of LEP/NEP children in need of help.

Table 10: Percentage of Clinicians Providing Service to LEP/NEP Children by Type of Bilingual Education Program

	Served LEP/NEP (n=188)
Type of Program	
Self-contained class with full-time teacher	63.30% (119)
Part-time Bilingual Education outside regular class	57.73% (101)
ESL class	61.17% (115)

Numbers in parentheses indicate raw frequencies. Numbers exceed 100% because some clinicians responded to more than one category.

In summary, approximately 20% of the children served by survey respondents were LEP/NEP, but district level data suggested that communicatively disordered LEP/NEP children comprise less than 1% of total enrollments in any district. It is difficult to determine from available data which of these figures is more accurate regarding prevalence. Such contradictory data notwithstanding, LEP/NEP and non-LEP/NEP children demonstrate the same types of disorders at proportionately the same frequency and in the same rank order: Language disorders are the most prevalent, followed by articulation, fluency, hearing, and voice disorders. Further, clinicians do not serve only LEP/NEP children; rather, such children are distributed in small numbers over a larger number of clinicians. In addition, clinicians have noted an increase in the number of LEP/NEP children in need of speech-language pathology service in the last 3 to 5 years; and districts report an increase in language minority students, although district level data were unavailable regarding changes in numbers of communicatively disordered LEP/NEP children. Moreover, presence of any bilingual education program influences speech and language service, but specific types of bilingual education do not. Finally, clinicians

believed that communication disorders in LEP/NEP children are manifested in both languages, and in general they felt able to judge communication disorders in languages other than English.

Clinician Non-English Language Ability

The Lau decision demands that instruction of language minority children be conducted in their primary language. To comply with such a requirement implies non-English language ability in clinicians providing service to communicatively disordered LEP/NEP children. Although it has been suggested that bilingual skill is rare in speech-language pathologists (Dulay, Burt & McKeon, 1980), the basis of the claim was a survey comprised of 60 respondents, and Spanish was the only relevant language. The current survey, therefore, sought to determine non-English language abilities of clinicians serving LEP/NEP children by asking the following questions:

"Can you speak any language(s) other than English?

a. yes (specify) _____

b. no _____"

"Indicate your ability to use your other language(s).

	Full Fluency	Ordinary Conversation/ Simple Communication	Few Simple Words and phrases
understand	_____	_____	_____
speak	_____	_____	_____
read	_____	_____	_____
write	_____	_____	_____"

"Where/how did you learn your other language(s)? (Check all that apply)

a. acquired at home _____

b. learned through high school courses _____

c. learned through college courses _____

d. learned living abroad _____

e. other (specify) _____"

As noted previously, terms such as "know," "ability," "proficiency," "use," and "speak," while potentially carrying different meanings, are all used here interchangeably to reflect clinician self-reports of non-English language status. Since data were collected in a mail survey, no effort was made to objectively measure clinician proficiency, and self-reports are taken as statements of knowledge, ability, proficiency, and use.

More than half of the total sample reported speaking a language other than English, and proportionately more clinicians who served LEP/NEP children than who did not reported non-English language knowledge. Distribution of non-English language knowledge in respondents who did and did not serve LEP/NEP children is shown in Table 11. In both groups, of the non-English languages, Spanish was most frequently reported. Of the non-Spanish languages, the 4 most frequently reported were French, Sign Language, German, and Chinese. Table 12 shows the non-English languages mentioned by the 69 clinicians who reported knowledge of non-Spanish languages. Since several clinicians reported knowledge of more than one language, Table 12 reflects ranking by frequency with which a language was mentioned.

Proficiency levels. Although a large proportion of respondents who served LEP/NEP children noted speaking non-English languages, relative proficiency levels might be an important factor that could alter interpretations regarding clinician language ability. Table 13 shows ability levels reported by clinicians who served LEP/NEP children. Data are derived from the second questionnaire item stated above.

Table 11: Percentage of Clinician-Reported Non-English Language Knowledge

	Served LEP/NEP (n=222)	Did Not Serve LEP/NEP (n=107)
Spanish	43.7 (97)	25.2 (27)
Other	11.3 (25)	11.2 (12)
Spanish and Other	11.3 (25)	6.5 (7)
English Only	33.7 (75)	57.0 (61)
Total reporting non-English knowledge	66.2 (147)	43.0 (46)

Numbers in parentheses indicate raw frequencies.

Table 12: Clinician Non-Spanish Other Language Knowledge
(Ranking by Frequency of Reporting)

Rank	Language	Frequency Mentioned
1	French	40
2	Sign Language (ASL, SEE, Signed English)	16
3	German	8
4	Chinese (Cantonese, Mandarin, Taiwanese)	4
5	Hebrew	3
5	Yiddish	3
6	Japanese	2
6	Italian	2
7	Hungarian	1 each
	Norwegian	
	Welsh	
	Turkish	
	Danish	
	Slovenian	
	Hindi	
	Greek	
	Serbo-Croatian	
	Luthuanian	
	Portuguese	
	Russian	
	Arabic	

Table 13: Percentage of Clinician Reported Ability Levels for Non-English Languages in Clinicians Serving LEP/NEP Children (n=147)

	Understand		Speak		Read		Write	
	Spanish	Other	Spanish	Other	Spanish	Other	Spanish	Other
full fluency	15.0 (22)	6.8 (10)	13.6 (20)	7.5 (11)	17.7 (26)	6.8 (10)	12.9 (19)	6.8 (10)
ordinary usage	44.2 (65)	17.0 (25)	34.0 (50)	12.2 (18)	40.1 (59)	10.2 (15)	34.0 (50)	8.2 (12)
few words	23.8 (35)	10.2 (15)	34.7 (51)	14.3 (21)	19.7 (29)	9.5 (14)	21.8 (32)	8.8 (13)
no ability	17.0 (25)	66.0 (97)	17.7 (26)	66.0 (97)	22.4 (33)	73.5 (108)	31.3 (46)	76.2 (112)
total reporting some usage	83.0 (122)	34.0 (50)	82.3 (121)	34.0 (50)	77.6 (114)	26.5 (39)	68.7 (101)	23.8 (35)

Numbers in parentheses indicate raw frequencies.

"Full fluency" related to complete ability to function in a language. "Ordinary usage" related to simple everyday conversation and, regarding reading and writing, to complete but simple expressions. "Few words" related to usage of simple words and phrases and passable but limited functioning in the language.

For all languages, few clinicians reported full fluency. Numbers reported were relatively stable across all 4 performance areas, suggesting that the fully fluent clinicians, although few in number, were bilingual and biliterate.

Further, for all languages, clinicians indicated best comprehension (understanding and reading) at the ordinary usage level and best expression (speaking and writing) at the few words level. Whether such abilities are adequate for providing clinical service is questionable.

In general, these findings reflect higher percentages of Spanish knowledge than noted by Dulay, Burt and McKeon (1980), but differences may relate to reported fluency levels in the two studies. Thirty-four (34) percent of the respondents to this survey indicated Spanish speaking ability at the ordinary conversational level. In the Dulay, Burt and McKeon study, 37% of the respondents reported Spanish fluency. Although it is unclear how they defined "fluency," if it is taken to mean ordinary conversational speaking ability then the findings of both studies are similar and suggest that relatively few clinicians who speak Spanish have conversational ability in the language.

School districts were also surveyed regarding clinician language background. All of the districts that participated in the survey indicated that communicatively disordered LEP/NEP children were seen by speech-language clinicians throughout the district and that they tried to have clinicians with non-English ability serve LEP/NEP children. But none of the districts had specific information regarding clinician language background. Further, even where districts indicated employing clinicians with non-English language knowledge, clinician report was the method used to determine ability levels within the language.

Relationship between clinician and child non-English languages. The questions that now arise relate to whether clinicians who know Spanish serve Spanish-language children, and whether clinicians who know non-Spanish languages serve non-Spanish language children. Although 222 respondents indicated serving LEP/NEP children, only 108 (48.6%) reported Spanish knowledge and service to Spanish children. Similarly, only 30 (13.5%) respondents reported non-Spanish language knowledge and service to non-Spanish children.

At this point it is reasonable to question how the non-Spanish languages known by clinicians relate to the non-Spanish languages represented in the LEP/NEP children served. Table 14 lists the non-Spanish languages of the LEP/NEP children. Since many clinicians did not report numbers of children served in the non-Spanish language groups, the ranking in Table 14 reflects the frequency with which clinicians reported serving the children from the various languages. As a group, Asian languages were most frequently reported, and Vietnamese was the single most frequently mentioned language. Comparing these frequencies to reported clinician non-Spanish languages from Table 12 shows limited overlap between languages known by clinicians and those represented in the LEP/NEP caseloads. It is interesting to note that although French was the most frequently reported clinician language, it was one of the least frequently noted among the LEP/NEP children. Further, of the Asian languages represented in the children, Vietnamese ranked first; but no clinicians reported knowledge of that language. It is also important to point out that although some languages reported by clinicians also appear on the list of languages in the LEP/NEP children, clinicians who reported knowledge of a given language did not necessarily serve children from that language group. Given the limited overlap between non-Spanish clinician and child languages, it seems that Spanish LEP/NEP children have a better chance than non-Spanish students of receiving service from a clinician who is familiar with their language.

Mode of clinician non-English language learning. Two subissues posed in this survey relate to more of non-English language learning. One issue addresses the question of whether language minority people are professionally trained to provide services in the area of bilingual special education. For purposes of this study, "language minority" is defined as a person who acquired non-English language ability at home. Location of language learning might also suggest whether non-language minority clinicians had non-English language knowledge and chose to use it by working with LEP/NEP children, or if they encountered LEP/NEP children in their work and learned other languages to be able to function more effectively. Mode of non-English language learning is

Mode of non-English language learning is shown in Table 15; data are derived from the third questionnaire item stated above. Since response categories for this question were not mutually exclusive, numbers in Table 15 do not sum to 100%.

Table 14: Languages Other than Spanish in LEP/NEP Communicatively Disordered Children (frequency of reported service)

Rank	Language	Frequency Reported
1	Vietnamese	43
2	Cambodian, Lao, Hmong, Thai, 'Indochinese'	26
3	Arabic (Farsi, Lebanese, Iranian, Egyptian, 'Mid-East dialect)	20
4	Chinese (Cantonese, Mandarin, Taiwanese)	18
5	Filipino, Tagalog	16
6	Korean	15
7	Indian (Pakistani, Hindi)	6
8	Japanese	5
9	Armenian	4
9	Portuguese	4
9	Sign (ASL, SEE, Signed English)	4
9	Samoan, Guamanian, Tonganese	4
10	French	3
10	Hebrew	3
11	Italian	2
12	German	1
12	Russian	1
12	Polish	1
12	Scottish	1

Table 15: Percentage of Clinicians Reporting Mode of Non-English Language Learning

	Served LEP/NEP (n=147)	Did Not Serve LEP/NEP (n=46)
Mode		
at home	22.4 (33)	6.5 (3)
high school courses	64.6 (95)	69.6 (32)
college courses	71.4 (105)	69.6 (32)
living abroad	29.3 (43)	15.2 (7)
other	41.5 (61)	19.6 (9)

Numbers in parentheses indicate raw frequencies. Numbers exceed 100% because some clinicians responded to more than one category.

A small number of respondents acquired their non-English languages at home and may be considered language minority professionals. It might be inferred that those clinicians decided to use their languages professionally; but such an explanation may be viable only for Spanish-speakers since non-Spanish languages reported by clinicians included Chinese, Hebrew, Hindi, Hungarian, Japanese, Lithuanian, Russian, Serbo-Croatian, Slovenian, Welsh, and Yiddish and these languages did not occur frequently in the LEP/NEP children served. Further, from the way information was reported on the survey, it is difficult to determine how many respondents acquired Spanish and how many acquired other languages: Thirty-two (32) clinicians who acquired languages at home indicated both Spanish and other language knowledge but did not differentiate how the languages where learned. The best conclusion that can be suggested is that few speech-language professionals providing service to communicatively disordered LEP/NEP children can be

considered language minorities who acquired their non-English languages at home.

Most respondents learned non-English languages in either college or high school courses. Such learning might not indicate premeditated preparation for serving LEP/NEP children, but rather might reflect typical college preparation high school curricula and undergraduate foreign language requirements at most universities. Further, more clinicians who served LEP/NEP children than who did not learned their non-English language living abroad, but how such learning relates to professional service is unclear.

Of some interest is the category of language learning through other means. "Other" responses were specified by respondents as learning through state- or district-sponsored language institutes or through exposure to other language speakers on the job. More clinicians who reported serving LEP/NEP children than who did not indicated learning language through these other means; and of the clinicians who served LEP/NEP students, the "other" category was the third most frequently reported location of non-English language learning. It may be that clinicians who serve LEP/NEP children actively attempted to acquire languages other than English, possibly to serve more effectively.

In summary, although a large proportion of clinicians who serve LEP/NEP children report non-English language knowledge, few speak or understand those languages at a full fluency level. In the case of non-Spanish languages, little overlap was noted between clinician and child non-English language ability. Such findings suggest that clinician non-English language knowledge may be irrelevant to clinical practices but that Spanish-language LEP/NEP children may have a better chance than non-Spanish children of receiving service from a clinician who is familiar with their language. Finally, few language minority people are professionally trained and providing clinical service to communicatively disordered LEP/NEP children.

Given limited clinician fluency in non-English languages, it is reasonable to question whether clinician language ability influences language of instruction with LEP/NEP communicatively disordered children. To address this question, we now turn to results regarding languages used for clinical service.

Language of Instruction

Language of instruction represents an important area in discussing the intersection of bilingual education and special education with respect to speech-language pathology. Federal legislation mandates unbiased assessment of children in their home language prior to special education placement; and in order to place a child in speech-language service a disorder must be demonstrated in both the home language and in English. Further, bilingual education regulations dictate educating children in their primary languages. Logically, those regulations should govern language of speech-language therapy. Given these regulations, the language used for diagnosis of and therapy with communicatively disordered LEP/NEP children becomes an important issue. The following questionnaire item was used to address this issue:

> "In which language did you provide clinical service to your limited-English speaking/non-English speaking caseload? (Check all that apply)
>
> | | Diagnosis | | Therapy | |
> |---|---|---|---|---|
> | | Home Language | English | Home Language | English |
> | Spanish speaking children | _____ | _____ | _____ | _____ |
> | other language groups | _____ | _____ | _____ | _____" |

In response to this questionnaire item, clinicians indicated conducting diagnosis and therapy in the child's home language, in English, or in both languages. For any given child language group, percentage of clinicians who provide treatment that accounts for the home language can be determined by combining the "home language only" and the "both languages" categories. Where clinicians indicated

serving LEP/NEP children but did not indicate conducting diagnosis or therapy with a particular language group, responses were coded as "no service."

Language of diagnosis. As shown in Table 16, more than two-thirds (68.47%) of all clinicians serving LEP/NEP children indicated doing diagnostics in Spanish, but less than 20% reported doing diagnostics in languages of the non-Spanish LEP/NEP children. Table 17 presents language of diagnosis in light of clinician language ability. Approximately half of the clinicians who reported Spanish knowledge indicated doing diagnostics in that language. Almost 25% of clinicians who did not report Spanish knowledge but conduct diagnostics with Spanish-language children report doing diagnostics in that language. For non-Spanish LEP/NEP children, diagnosis was done predominantly in English regardless of clinician language ability. Further, diagnosis of language ability using the home language of non-Spanish children was conducted equally, albeit infrequently, by all clinicians regardless of their language background.

Table 16: Percentage of Clinicians Providing Diagnostic Service to LEP/NEP Children by Child Language

	Spanish Language Children	Other Language Children
both languages	51.80 (115)	13.06 (29)
home language only	16.67 (37)	4.05 (9)
English only	22.97 (51)	28.83 (64)
no service	8.56 (19)	54.05 (120)

Numbers in parentheses indicate raw frequencies.

Table 17: Percentage of Clinicians Providing Diagnostic Service to LEP/NEP Children by Clinician Language Ability

	Spanish Language Children		Other Language Children	
	Clinician Knows Spanish	Clinician Does Not Know Spanish	Clinician Knows Other Language	Clinician Does Not Know Other Language
Language of Diagnosis				
Home Language	50.2 (102)	24.6 (50)	18.6 (19)	18.6 (19)
English	6.9 (14)	18.2 (37)	13.7 (14)	49.1 (50)

Numbers in parentheses indicate raw frequencies.

Several points are of interest regarding language of diagnosis results. With respect to clinicians who diagnose Spanish language children, not all clinicians who know Spanish and serve that group of children use Spanish in diagnostics. Why this is so is unclear, but may be related to inadequate clinician knowledge of the language to use it professionally. Further, not all Spanish children are diagnosed in their primary language. Such a finding represents direct violation of P.L 94-142 and bilingual education regulations. Since flagrant violation of such regulations seems implausible, it must be inferred that someone with bilingual Spanish skill, and other than clinician respondents to this survey, is involved in the diagnostic process with Spanish communicatively disordered LEP/NEP children. Finally, it must be inferred that clinicians who do not know Spanish but use that language in diagnostics receive some type of assistance to conduct such assessments of home language ability.

With respect to clinicians who diagnose non-Spanish language children, that most diagnosis is conducted in English is not surprising in light of limited overlap between clinician language ability and languages represented in the non-Spanish LEP/NEP children. It seems

that clinician-reported non-Spanish language abilities may be unimportant relative to professional functioning. That any evaluations are conducted to assess the home language abilities of non-Spanish children using their home languages is surprising, considering lack of clinician ability in those languages. Clearly, clinicians must receive help to accomplish evaluation of these children and comply with home language diagnosis mandates. In responding to the survey, many clinicians indicated anecdotally that assessments were conducted with the assistance of interpreters who knew the child's language. Results of district interviews indicated that Spanish interpreters were most frequently available in all districts. Interpreters for Vietnamese, Chinese, Korean, and Japanese were also available; but interpreters for other languages were not always available. People serving as interpreters were generally other school staff, parents, or members of the community.

Such a situation, although contributing to compliance with legislative mandates, raises an issue with far-reaching implications for clinical practice. If an evaluation of a LEP/NEP child's communication ability is conducted in a language that is not known by the clinician and with the assistance of interpreters who may not be familiar with assessment procedures or content, how valid are results obtained and how can appropriate therapy plans be designed? Such an issue clearly merits deep investigation, but some preliminary insights might be achieved by examining results of the present study regarding language of therapy.

Language of therapy. As shown in Table 18, all clinicians who served LEP/NEP children provided therapy primarily in English. Similar results are noted when language of therapy is viewed in light of clinician language ability. As shown in Table 19, and with respect to Spanish language children, equal numbers of clinicians who know Spanish provide therapy in that language to Spanish LEP/NEP children. However, more than two-thirds of clinicians who serve Spanish children provide therapy in English regardless of clinician language ability. With

respect to non-Spanish children, over 80% of clinicians provide therapy in English regardless of clinician language ability.

Table 18: Percentage of Clinicians Providing Therapeutic Service to LEP/NEP Children by Child Language

	Spanish Language Children	Other Language Children
both languages	22.97 (51)	3.60 (8)
home language	5.86 (13)	1.35 (3)
English	60.81 (135)	37.39 (83)
no service	10.36 (23)	57.66 (128)

Numbers in parentheses indicate raw frequencies.

Table 19: Percentage of Clinicians Providing Therapeutic Service to LEP/NEP Children by Clinician Language Ability

	Spanish Language Children		Other Language Children	
	Clinician Knows Spanish	Clinician Does Not Know Spanish	Clinician Knows Other Language	Clinician Does Not Know Other Language
Language of Therapy				
Home Language	27.1 (54)	5.0 (10)	8.5 (8)	3.1 (3)
English	27.9 (54)	40.8 (81)	22.5 (21)	66.0 (62)

Numbers in parentheses indicate raw frequencies.

Several points are of interest regarding these results. First, since therapy is primarily provided in English, clinician-reported ability in non-Spanish languages may be irrelevant to clinical practice with LEP/NEP children; and clinician-reported Spanish ability may be inadequate to conduct therapy in Spanish. Thus, selection of English as the instructional language may be expedient, and, given limited research data regarding relative benefit of therapy conducted in English or the home language, such selection is as defensible as any other. Further, although clinicians noted assistance from interpreters for diagnosis, no such anecdotal reports were made regarding therapy; district level data suggested that interpreters were used primarily for diagnosis. Such a phenomenon might account for the finding of more diagnosis than therapy being conducted in children's primary languages; but considering limited overlap between clinician and child non-Spanish language background, that any clinician provides therapy in the home language of non-Spanish children is surprising. Finally, reported practices regarding language of therapy seem to be in violation of the Lau decision. How such apparent non-compliance could occur can be explained by clarifying the relationship between federal, state, and local jurisdictions.

The Lau decision is a federal civil rights mandate that is

> "both prescriptive and permissive. . . . It explicitly requires that language-minority children's civil rights be protected, that they cannot be denied equal opportunity. How they are identified, assessed, grouped, and educated, however, is within the realm of the state and local levels." (Berke, 1982, p. 10)

The California State Department of Education sees diagnosis among its areas of involvement but remediation issues of curriculum design and prescription are considered to fall within the domain of local school districts. Further, districts do not express a clearly defined philosophical approach to language of therapy with LEP/NEP children. In response to the district interviews, while most districts indicated that instructional language depended on the needs of the child and available personnel, they also reported that therapy was usually

conducted in English for the practical reason that most clinicians were not able to do therapy in other languages. Thus, while Lau essentially mandates non-discrimination on the basis of language, local educational agencies can and do implement programs in a variety of "non-discriminatory" ways. Conducting therapy in English with LEP/NEP children is, therefore, interpreted as falling within legal requirements. It may also be, however, that clinicians and their supervisors view speech-language therapy as governed by special education rather than bilingual education regulations. Whether or not this is the case cannot be determined from this study, but since language of instruction represents a major difference between special and bilingual education mandates, such a possibility should not be rejected without further investigation.

Professional time spent per activity. Two questionnaire items addressed the issue of how speech-language pathologists spend their professional time with LEP/NEP and non-LEP/NEP children.

"What percentage of your time spent with your total caseload was devoted to:

a. diagnosis ____%
b. remediation ____%
c. administration/ paperwork ____%
d. conferencing ____%
e. other (specify) ____ ____"

"What percentage of your time spent with your limited-English speaking/non-English speaking caseload was devoted to:

a. diagnosis ____%
b. remediation ____%
c. administration/ paperwork ____%
d. conferencing ____%
e. other (specify) ____ ____"

Only responses of clinicians who indicated serving LEP/NEP children were analyzed; results were obtained by comparing answers to the first and second items stated above. For clarity of reporting, time percentages were grouped. Thus, for example, clinicians who reported

spending 12%, 15% or 18% of their time in diagnosis were grouped in the 11% to 20% category.

As can be seen from Table 20, in general, of all professional activities engaged in by clinicians with all students, most time was devoted to therapy. Differences in time spent with LEP/NEP and non-LEP/NEP students were slight. Most diagnostic time was spent in the 11% to 20% range, most therapeutic time was spent in the over 60% range, and most administrative and conferencing time was spent in the 1% to 10% range. Where clinicians reported "other" time, activities included yard duty or attending meetings, but relatively little time was reported as spent in these ways.

Comparing time spent with the two groups of children suggests that in the diagnostic category slightly more time was spent with LEP/NEP children. In therapy, administration, and conferencing, less time was spent with those students.

Such findings are interesting particularly when viewed in light of clinician perceptions regarding demands on their professional time and experience. Clinicians were asked the following questionnaire item in this regard:

> "What are the demands on your professional time and experience in working with limited-English speaking/non-English speaking children?
>
> a. more demand on my professional time and experience than English-speaking children ____
>
> b. same demand on my professional time and experience as English-speaking children ____
>
> c. less demand on my professional time and experience than English-speaking children ____"

Table 20: Percentage Time Spent per Activity

% Time	Diagnosis				Therapy				Administration				Conferencing				Other			
	Served LEP/NEP		Did Not Serve LEP/NEP		Served LEP/NEP		Did Not Serve LEP/NEP		Served LEP/NEP		Did Not Serve LEP/NEP		Served LEP/NEP		Did Not Serve LEP/NEP		Served LEP/NEP		Did Not Served LEP/NEP	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
0	10	4.5	11	11.5	14	6.3	11	11.5	13	5.9	10	10.4	13	5.9	11	11.5	172	77.5	83	86.5
<10	72	32.4	32	33.3	3	1.4	3	3.1	106	47.7	53	55.2	167	75.2	73	76.0	40	18.0	9	9.4
11-20	103	46.4	40	41.7	7	3.2	0	---	69	31.1	21	21.9	37	16.7	9	9.4	8	3.6	3	3.1
21-30	19	8.6	10	10.4	9	4.1	2	2.1	22	9.9	7	7.3	4	1.8	1	1.0	2	.9	0	---
31-40	7	3.2	2	2.1	24	10.8	3	3.1	4	1.8	2	2.1	0	---	1	1.0	0	---	0	---
41-50	5	2.3	1	1.0	47	21.2	13	13.5	3	1.4	0	---	0	---	0	---	0	---	1	1.0
51-60	2	.9	0	---	41	18.5	19	19.8	3	1.4	1	1.0	1	.5	1	1.0	0	---	0	---
>60	4	1.8	0	---	77	34.7	45	46.9	2	.9	2	2.1	0	---	0	---	0	---	0	---

Responses indicated that 41% of the clinicians believed LEP/NEP children demand more of their professional time and experience than do non-LEP/NEP children; whereas 29.7% believed they demand less time and experience and 29.7% believed they demand the same amount of professional time and experience. Why such perceptions prevail is unclear, but examining clinician concerns regarding reuirements for serving LE/NEP children might shed light on the issue.

Primary needs of professionals serving LEP/NEP children. The following open-ended questionnaire item was used to determine what clinicians believed would be most helpful for professionals providing services to LEP/NEP children.

> "What do you see as the primary needs of professionals who provide clinical services to communicatively disordered limited-English speaking/non-English speaking children?"

Data were analyzed in several ways. First, all responses were reviewed and the following thematic categories were identified:

- diagnostic issues, such as differential diagnosis, personnel/training/skill to accomplish bilingual differential diagnosis, and diagnostic tools and materials;
- therapeutic issues, such as special day classes for language impaired LEP/NEP children, adequate and appropriate materials, and guidelines regarding language of treatment and criteria for placement;
- interpreters, aides, translators;
- clinician ability to use non-English languages;
- knowledge of the child's culture;
- knowledge of second language acquisition principles;
- knowledge of linguistic structure of child's primary language;
- family factors, such as communication with the family and parent conferencing;
- inservices;
- other responses, such as administrative support, good public relations, and awareness of resources.

Since some categories included only 1 or 2 responses, categories were combined as follows:

- diagnosis;
- therapy;
- inservices;
- clinician language ability;
- interpreters;
- first language structure, including second language acquisition principles;
- family factors, including knowledge of the child's culture.

The "other" category was omitted from further analysis since responses were single answers that did not fall into any other categories identified.

Next, since most clinicians who answered this question listed several areas of need, responses were looked at in two ways: All responses were tallied to determine if clinicians mentioned any of the categorical areas in their answers, and only first responses were tallied on the assumption that the first answer listed could be taken as the clinician's primary concern. Results of these two analyses showed the same ranking of clinician concerns.

As can be seen from the first responses shown in Table 21, clinicians who served LEP/NEP children showed the following order of concerns: Diagnosis, clinician language ability, inservices and interpreters, therapy, first language structure, and family factors. A slightly different ordering is seen for clinicians who did not serve LEP/NEP children: Diagnosis, clinician language ability, inservices and first language structure, interpreters, family factors, and therapy.

Table 21: Percentage of Clinicians' First Response - Needs for Clinicians Serving LEP/NEP Children

	Served LEP/NEP (n=182)	Did Not Serve LEP/NEP (n=69)
Response		
diagnosis	33.0 (60)	47.8 (33)
clinician language ability	17.6 (32)	13.0 (9)
inservices	12.6 (23)	11.6 (8)
interpreters	12.6 (23)	10.1 (7)
therapy	10.4 (19)	1.4 (1)
first language structure	8.2 (15)	11.6 (8)
family factors	5.5 (10)	4.3 (3) (1)

Numbers in parentheses indicate raw frequencies.

It is interesting to note that both groups expressed primary concern for diagnostic issues and relatively little concern for therapeutic issues. Further, that need for clinician non-English language ability ranks relatively high for both groups, but particularly with respect to clinicians who serve LEP/NEP children, suggests that abilities in this area reported by clinicians may not be adequate to make them feel comfortable using the language in clinical practice. Finally, that inservices are perceived as an important need for professionals serving LEP/NEP children suggests that this method of disseminating appropriate information to workers in the field may be powerful and a technique that could be explored by school districts. More will be said regarding this issue later in this report.

In summary, language used for diagnosis varies depending on child language and clinician non-English language knowledge, but evaluations done in the home language are conducted either by clinicians alone or with help from interpreters and translators. In contrast, therapy is done in English without help from interpreters or translators, possibly because clinician non-English language ability is inadequate for use in therapy. Further, most clinician time is spent in therapy, not diagnosis, but diagnostic issues represent the overriding area of concern regarding professional needs for serving LEP/NEP children. Finally, time spent with LEP/NEP and non-LEP/NEP children is proportionately similar, although clinicians perceive LEP/NEP children to be more demanding of their professional time and experience.

Such findings raise some interesting questions. Why should diagnostics--a task that takes less professional time--be the focus of overriding clinician concern? In addition, why should LEP/NEP children be perceived as more demanding regarding professional time and experience since they apparently take the same amount of time as non-LEP/NEP students?

Focus on diagnosis may be related to a variety of factors such as need to comply with special education legislation, desire to appropriately diagnose disorders in children in order to qualify them for service, inadequate clinician fluency levels in non-English languages to perform accurate evaluations, reliance on interpreters who may or may not be knowledgeable regarding diagnosis of communication disorders, or emphasis on diagnostic issues noted in the research literature. But lack of concern regarding what to do with children once they qualify for service is confusing, particularly when viewed in light of amounts of time devoted to various professional activities. That clinician concern should focus on tasks that take less of their time must be accounted for by factors such as task difficulty or perceived or real importance of the task in the overall therapeutic program. Since these children are, by definition, limited or non-English proficient, conducting therapy in English might not be as

much remediation of disorders as teaching English to limited language children. Such remediation and teaching are not the same task, the former being the activity clinicians are trained to do and the latter being the job of other bilingual education professionals. This discrepancy might explain clinician perceptions regarding demands on their time made by LEP/NEP children, but it does not explain overriding concern for diagnostic issues almost to the exclusion of therapeutic questions. It may be that once assessment is completed, a perceived crisis is over, since completion implies compliance with legislation and appropriate qualification of the child for service. Remediation can legally be provided in English, thus pressures of compliance do not exist and therapy can, therefore, be conducted as it would be for any child on the caseload, that is in English. Such an explanation is supported by the data and it might account for overriding concern for diagnostics, lack of concern for therapy, different languages of instruction for diagnosis and therapy, perception of demands on professional time, and discrepancy between time spent per activity and concern for activity.

Professional Preparation and Resource Usage

A major question posed in this study related to professional preparation to provide bilingual special education service as well as to clinician usage of available resources to assist them in providing such service. Data presented here were derived from interviews with district, state and professional organization personnel, as well as from responses to the following questionnaire items:

> "What type of preparation have you had for providing bilingual special education services to communicatively disordered limited-English speaking/non-English speaking children?
>
> a. college courses ____ d. other (specify) _____
>
> b. training workshops ____ _____
>
> c. inservices ____ e. no special preparation ____"

"What types of resources do you know about and have you used to assist you in serving limited-English speaking/non-English speaking communicatively disordered children? (Check all that apply)

	Inservice Training Program		Training Workshops		Printed Materials		Continuing Education Conferences	
	know about	used	know about	used	know about	used	know about	used
Work facility	____	____	____	____	____	____	____	____
National/ regional/state professional organizations	____	____	____	____	____	____	____	____
State department of Education	____	____	____	____	____	____	____	____"

"Where there barriers to using resources that you knew about?

a. lack of funds _____

b. no time off from work _____

c. found out about them too late _____

d. other (specify) _____

_____"

Professional preparation. Clinician responses to the first questionnaire item stated above were initially coded "special preparation" and "no special preparation." As can be seen in Table 22, almost three-quarters (71.6%) of the clinicians who served LEP/NEP children had some type of special preparation for bilingual special education.

Responses of clinicians who indicated having special preparation were further tallied according to source of preparation. Table 23 shows source of special preparation, and since response categories were not mutually exclusive, numbers do not sum to 100%. Results suggest that most clinicians, whether they served LEP/NEP children or not, did not receive pre-service preparation through college courses. Rather, they obtained training after they were employed, predominantly through inservices provided by the work facility. Training workshops, a type of learning experience generally available outside the work facility,

were the third most frequently reported source of special preparation. "Other" sources, such as self-study or learning by experience, were least frequently reported by both groups of clinicians.

Table 22: Percentage of Clinicians Reporting Professional Preparation for Bilingual Special Education

	Served LEP/NEP (n=222)	Did Not Serve LEP-NEP (n=107)
Special Preparation	71.6 (159)	50.5 (54)
No Special Preparation	28.4 (63)	49.5 (53)

Numbers in parentheses indicate raw frequencies.

Table 23: Percentage of Clinicians Reporting Source of Professional Preparation for Bilingual Special Education

	Served LEP/NEP (n=222)	Did Not Serve LEP/NEP (n=107)
Source		
college courses	29.7 (66)	14.0 (15)
training workshops	41.4 (92)	20.6 (22)
inservices	55.4 (123)	42.1 (45)
other	16.2 (36)	5.6 (6)

Numbers in parentheses indicate raw frequencies. Numbers do not equal 100% because some clinicians responded to more than one category and some clinicians did not respond.

Although the order of usage frequencies are identical for both groups of clinicians, proportionately more clinicians who did than who did not serve LEP/NEP children reported special preparation in each response category. It is likely that such results reflect clinician involvement with those students, but in the case of college level preparation may also suggest premeditated plan to provide such service. Clinicians may, therefore, have taken more courses than those required to meet the bilingual-crosscultural credential competency.

Resource usage. Responses to the second questionnaire item stated above were analyzed to determine what resources clinicians actually use. If categories were left blank, responses were coded as "not used"; if both "know about" and "used" were checked, responses were coded as "used"; and if only "know about" was checked, it was coded as a distinct response. To determine actual usage, only responses coded as "used" were analyzed. Further, responses were analyzed according to usage of resources available from specific providers, and these results are shown in Table 24. Finally, responses were analyzed according to usage of specific type of resource available from particular providers, and these results are shown in Table 25.

Table 24: Percentage of Clinicians Reporting Resource Usage

	Served LEP/NEP (n=222)	Did Not Serve LEP/NEP (n=107)
Resource Provider		
Work Facility	64.4 (143)	43.0 (46)
Professional Organizations	50.0 (111)	26.2 (28)
State Department of Education	23.4 (52)	15.0 (16)

Numbers in parentheses indicate raw frequencies. Numbers do not equal 100% because some clinicians responded to more than one category and some clinicians did not respond.

Table 25: Percentage of Clinicians Reporting Resource Usage by Type and Source

	Served LEP/NEP (n=214)	Did Not Serve LEP/NEP (n=85)
Work Facility		
Inservices	47.2	40.0
Workshops	31.8	20.0
Printed materials	48.6	35.3
Continuing education conferences	19.2	10.6
Professional Organizations		
Inservices	18.7	12.9
Workshops	22.0	8.2
Printed materials	37.9	21.2
Continuing education conferences	26.6	8.2
State Department of Education		
Inservices	9.3	5.9
Workshops	12.1	3.5
Printed materials	19.2	15.3
Continuing education conferences	8.4	3.4

Numbers do not equal 100% because some clinicians responded to more than one category.

As can be seen in Table 24, clinicians who served LEP/NEP children used resources from all providers more frequently than did clinicians who did not serve those children. Such a finding is not surprising considering the professional involvement of clinicians who serve LEP/NEP students. For both clinician groups, available resources were not used extensively from any source; and all resources provided by the work facility were utilized more than resources available from professional organizations or from the State Department of Education.

Table 25 shows resource usage by type and by source. These data underscore that the work facility was the primary source of information used by clinicians. Further, within the work facility, printed materials were the most frequently used resource. These printed materials may include forms such as parent permission forms, IEP forms, and parent/student rights forms. All districts routinely provide such forms, at least in Spanish, and many districts have forms available in Vietnamese, Chinese, Korean, and Japanese as well. However, since many forms are used in the course of therapy, but do not directly address clinical management issues, high usage of printed material may not be as beneficial to clinicians in terms of clinical intervention as would be suggested by the percentages reported.

Inservices provided by the work facility were the second most frequently reported resource used within that category. It was found from the district interviews that inservices specifically for speech-language pathologists were provided only on occasion, due to limited funds and higher priorities in areas other than management of LEP/NEP communicatively disordered children. Of the few inservices provided for speech-language pathologists, some attempted to increase clinician awareness of the problems of LEP/NEP communicatively disordered children, and others addressed the issue of second language acquisition; but most such programs presented information regarding diagnostics, and none addressed specific therapeutic issues. Further, although inservices were more frequently provided to bilingual education staff and other special services staff such as school psychologists and resource specialists, some district personnel

indicated that they were not included in such programs. Given that almost half the respondents to this survey who serve LEP/NEP children indicated using district provided inservices, plus the finding reported earlier that clinicians believe inservices are an important need for professionals providing service to LEP/NEP students, districts might consider reviewing their inservicing practices.

With respect to resources available from professional organizations, printed materials were again most frequently used. Such materials include brochures or pamphlets printed in languages other than English for use in conferencing, and, as was suggested regarding district-provided printed materials, may not be directly useful regarding clinical management of LEP/NEP children. Inservices were least frequently used and such low usage may be due to the fact that professional organizations do not typically offer this variety of resource. Continuing education conferences and workshops, offered at national or regional professional conferences, are the usual type of formal training provided by professional organizations. Although approximately one-quarter of the clinicians who serve LEP/NEP children have used this type of resource, most of these courses address diagnostic issues; thus, information might not be helpful in conducting therapy.

Of resources available from the three providers, those from the State Department of Education were least frequently used. Within this category, however, printed materials were the most frequently used. Such resources include materials relevant to diagnosis, since the state does not address therapeutic issues. Thus, information may be helpful in conducting evaluations but not regarding therapy. Further, continuing education conferences were least frequently used in this category. Such a finding is unfortunate, since conferences are one of the major resources available directly to clinicians from the state. That inservices were infrequently used by clinicians serving LEP/NEP children may reflect the fact that most state-sponsored inservices are presented through the districts: Clinicians may have attended

inservices in their districts but may not have known if the program was state-sponsored.

Barriers to using resources. Given the relatively low percentage of clinicians who used any type of resource, it is reasonable to wonder if there were barriers that prevented clinicians from using available resources. Responses to the third questionnaire item stated above were used to determine what barriers, if any, prevented clinicians from using available resources. Since not all clinicians responded to this question, if no response was given it was coded as missing data. A "no barriers" code was used if clinicians wrote in that response. Since other response categories were not mutually exclusive, coding of responses was done in terms of "no time," "no funds," "found out too late," "all of the above" if all response categories provided were checked, and "no time and no funds" if only those two response categories were checked. "Other" reasons written in included responses such as "no interest" or "not involved with that population/not relevant to work."

Table 26 shows that "no time", "no funds" and "no time and no funds" were the most frequently reported barriers. Since work facility inservices are generally provided free of charge during the work day, the benefits of attending such programs can be accrued to the clinician at no personal cost. However, all districts make funding and release time available to clinicians who wish to attend programs offered outside of the district. How this finding relates to clinician reports regarding barriers to using resources is unclear. Further, that printed materials were the most frequently used measure from professional organizations and from the State Department of Education may relate to the fact that most printed material is available free or for a minimal charge, again permitting clinicians to derive benefit but at little cost.

Table 26: Percentage of Clinicians Reporting Barriers to Using Resources

	Served LEP/NEP (n=160)	Did Not Serve LEP/NEP (n=65)
Type of Barrier		
no time	18.8 (30)	12.3 (8)
no funds	17.5 (28)	13.8 (9)
found out too late	3.8 (6)	9.2 (6)
all reasons above	11.3 (18)	9.2 (6)
no time and no funds	31.3 (50)	24.6 (16)
other reasons	10.6 (17)	9.2 (6)
no barriers	6.9 (11)	21.5 (14)

Numbers in parentheses indicate raw frequencies.

In summary, most clinicians who serve LEP/NEP children have had some type of special preparation for providing bilingual special education. Most clinicians did not receive pre-service preparation but obtained training after being employed. The work facility was the primary provider of resources used by clinicians; and, within that category, printed materials and inservices were the most frequently used. Most resources available from all providers involved diagnostic information and few resources offered help for therapy.

CONCLUSIONS AND RECOMMENDATIONS

This study was designed to investigate the intersection of special education and bilingual education in the area of speech-language pathology service provided to LEP/NEP children. The study surveyed speech-language pathologists, school districts, and national and state professional organizations to gather information describing current school practices and support services relative to communicatively disordered LEP/NEP children. Specific areas of focus included prevalence, clinician non-English language ability, language of instruction; professional preparation for bilingual special education, and resource availability and usage by speech-language pathologists.

The following results represent the major findings of this study:

1. Respondent Characteristics: Respondents to the survey of speech-language pathologists were primarily employed in a public school setting and served the elementary grades. They were predominantly master's level professionals who had speech-language public school credentials, California licensure in speech pathology, certification in speech pathology from the American Speech-Language-Hearing Association, and membership in the California Speech-Languge-Hearing Association. Of the overall sample, more than two-thirds served LEP/NEP children.

2. Prevalence: Approximately 20% of the children served by survey respondents were LEP/NEP students, but district level data suggested that communicatively disordered LEP/NEP children comprise less than 1% of total enrollments in any district. It is difficult to determine from available data which of these figures is more accurate regarding prevalence. Such inconclusive prevalence data notwithstanding, LEP/NEP and non-LEP/NEP children demonstrated the same types of disorders at proportionately the same frequency and in the same rank order: Language disorders were the most prevalent, followed by articulation, fluency, hearing, and voice disorders. Further, clinicians do not serve only LEP/NEP children; rather, such children are distributed in small numbers over a larger number of clinicians.

In addition, clinicians have noted an increase in the number of LEP/NEP children in need of speech-language pathology service in the last 3 to 5 years; and districts report an increase in language minority students, although district level data were unavailable regarding changes in numbers of communicatively disordered LEP/NEP children. Moreover, presence of any bilingual education program at a school site influences speech and language service, but specific types of bilingual education do not. Finally, clinicians believed that communication disorders in LEP/NEP children are manifested in both languages, and in general they felt able to judge communication disorders in languages other than English.

3. Clinician Non-English Language Ability: More than half of the total sample reported non-English language knowledge. Although a large proportion of clinicians who served LEP/NEP children also reported non-English language knowledge, few respondents speak or understand those languages at a full fluency level. In the case of non-Spanish languages, little overlap was noted between clinician and child non-English languages. Finally, few language minority people who are fluent in non-English languages and who acquired those languages at home are professionally trained and providing clinical service to communicatively disordered LEP/NEP children.

4. Language of Instruction: Language used for diagnosis of communication disorders in LEP/NEP children varies depending on child language and clinician non-English language knowledge, but evaluations done in the home language are conducted either by clinicians alone or with help from interpreters or translators. In contrast, therapy is provided in English without help from interpreters or translators. Further, most clinician time is spent in therapy, not diagnosis, but diagnostic issues represent the overriding area of concern regarding professional needs for serving LEP/NEP children. Finally, time spent with LEP/NEP and non-LEP/NEP children is proportionately similar, although clinicians perceive LEP/NEP children to be more demanding of their professional time and experience.

5. Professional Preparation and Resource Usage: Most clinicians who serve LEP/NEP children had some type of special preparation for providing bilingual special education. Most clinicians did not receive pre-service preparation but obtained training and information after being employed. The work facility was the primary provider of resources used by clinicians, and within that category printed materials and inservices were the most frequently used. Most resources available from all providers involved diagnostic information; few resources offered help for therapy.

Sample characteristics suggest that respondents to the survey of speech-language pathologists were professionally prepared beyond the basic requirements for their jobs. It is likely, therefore, that they represent a unique subgroup of speech-language pathologists, possibly a group demonstrating a higher level of preparedness for providing service to communicatively disordered LEP/NEP children than clinicians who were not sampled for this study. Further, although a large proportion of the sample in this study had special preparation, the quality of their preparation is unclear and content appeared skewed toward diagnostic issues. If survey respondents are assumed to represent a high level of preparedness, then other clinicians not included in this sample ight be inferred to be less prepared in terms of amount of training. If such an inference is true, then it is disturbing to consider the preparedness of the average clinician who might have had less preparation of unknown quality.

District-provided inservices might be one way to equalize such preparation unevenness. Districts do not provide many programs specifically for speech-language pathologists because of higher priorities in other areas and limited funds. This decision may be related to the apparently low prevalence of communicatively disordered LEP/NEP children. But since inservices are offered regularly to bilingual education staff, including speech-language pathologists in existing programs might be an alternative to providing programs only for speech-language pathologists. Such an option might also foster cooperative relationships between bilingual and special education which

would be beneficial to the children served. Further, state-designed and implemented inservices are available to districts at no charge and such an option might bring needed information to clinicians while not severely burdening district budgets.

Most resources available to clinicians address diagnostic issues. Such skewing in content seems to reflect types of research done and can be remedied by future research that addresses therapy-related questions. Some possible areas of investigation include research to determine minimum non-English language proficiency levels required to effectively use such languages professionally. Results of the current study suggest that clinician-reported non-English language abilities may be, at best, inadequate for professional use or, at worst, irrelevant to clinical practice. Apparently "ordinary conversational" levels are not adequate. If only full fluency will suffice, then a clear need exists for language minority people, particularly from non-Spanish backgrounds, to be trained as professionals and/or paraprofessionals. Alternatively, the process, time required, and cost of bringing existing professionals to full fluency levels should be investigated.

Further, research needs to be done to address the relative benefit of speech-language therapy conducted in English vs. in a child's home language. The present study suggests English is the language used in therapy because most clinicians do not have adequate ability in non-English languages. For such an important decision to be made on more substantive grounds requires empirical data which are currently lacking.

Related to such investigation might be studies to determine what the objectives, or expected outcomes, of speech-language therapy with LEP/NEP students are and, possibly, what they ought to be. Findings of such research might not only benefit the students, but might also clarify the diagnostic process and help define the speech-language pathologist's role regarding special education of LEP/NEP students.

Finally, research is needed regarding appropriate techniques for remediating communication disorders in LEP/NEP children. The notion that therapy can be conducted similarly with such children and with monolingual English-speaking students merely given interpreters and translated materials needs to be investigated and either validated or rejected empirically.

Results of this study suggest minimal intersection of special education and bilingual education in the area of speech-language pathology services provided to LEP/NEP children. Since special education and bilingual education mandates overlap in some important ways, particularly regarding required diagnostic procedures, following special education mandates creates compliance with most bilingual education regulations. But language of instruction represents a major area of difference between the two. Current practices reflect care devoted to compliance with assessment mandates that are common to special and bilingual education, but seem to only loosely follow requirements of instruction in a child's primary language dictated by bilingual regulations. Such practices seem to suggest that the provision of speech-language services is viewed under the special education domain. Perhaps the challenge of working out the relationship between special education and bilingual education is still being approached in the area of speech-language pathology service provided to LEP/NEP children.

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Appendix A

ID #_____

SURVEY OF SPEECH-LANGUAGE PATHOLOGISTS

First, we'd like to know a bit about your work setting.

1. In the 1981-82 school year, or during the last 12 months, what was your primary work setting?

   a. public school _____
   b. private school _____
   c. hospital _____
   d. clinic _____
   e. other (specify) _____

If public or private school setting was NOT checked, go on to Question 4.

2. What grades did you serve? (Check all that apply)

   a. K - 3 _____
   b. 4 - 6 _____
   c. 7 - 9 _____
   d. 10 - 12 _____

3. Does your school district have a bilingual education program?

   a. self-contained classroom with full-time bilingual teacher _____
   b. students seen outside of regular class by bilingual teacher on a part-time basis _____
   c. English-as-a-second language class _____
   d. no such program available _____

Now, we'd like to know about the work you do.

4. In the 1981-82 school year, or during the last 12 months, how many children were included in your total caseload? _____

5. What percentage of your time spent with your total caseload was devoted to:

   a. diagnosis _____%
   b. remediation _____%
   c. administration/ paperwork _____%
   d. conferencing _____%
   e. other (specify) _____

6. What types of disorders did you identify in your total caseload?

   a. language disorders _____ number of cases _____
   b. articulation disorders _____ number of cases _____
   c. fluency disorders _____ number of cases _____
   d. voice disorders _____ number of cases _____
   e. hearing disorders _____ number of cases _____

7. Did you provide clinical service to limited-English speaking/non-English speaking children?

   a. Spanish _____ number of cases _____
   b. other languages (specify) _____ number of cases _____
   _____ number of cases _____
   c. no such service provided _____

If no such services were provided, go on to Question 14.

8. What percentage of your time spent with your limited-English speaking/non-English speaking caseload was devoted to:

   a. diagnosis _____%
   b. remediation _____%
   c. administration/ paperwork _____%
   d. conferencing _____%
   e. other (specify) _____
   _____

9. What types of disorders did you identify in your limited-English speaking/non-English speaking caseload?

   a. language disorders _____ number of cases _____
   b. articulation disorders _____ number of cases _____
   c. fluency disorders _____ number of cases _____
   d. voice disorders _____ number of cases _____
   e. hearing disorders _____ number of cases _____

10. In which language did you provide clinical service to your limited-English speaking/non-English speaking caseload? (check all that apply)

	Diagnosis		Therapy	
	Home language	English	Home language	English
Spanish speaking children	_____	_____	_____	_____
other language groups	_____	_____	_____	_____

11. Some people feel that communication disorders in limited-English speaking/non-English speaking children will be noted in both languages, whereas others feel that disorders will be noted in only one language.

    a. Can you judge communication disorders in a language other than English?

       1. yes _____ 2. no _____

    In your experience when a limited-English speaking/non-English speaking child has a communication disorder, in which language does the disorder occur? (Check all that apply)

	Home language	English	Both	Unable to judge
b. language	_____	_____	_____	_____
c. articulation	_____	_____	_____	_____
d. fluency	_____	_____	_____	_____
e. voice	_____	_____	_____	_____

12. What are the demands on your professional time and experience in working with limited-English speaking/non-English speaking children?

    a. more demand on my professional time and experience than English-speaking children _____
    b. same demand on my professional time and experience than English-speaking children _____
    c. less demand on my professional time and experience than English-speaking children _____

13. Have you noted a change in the number of limited-English speaking/non-English speaking children in need of speech-language pathology service for limited-English speaking/non-English speaking children in the past 3-5 years?

    a. increased need noted _____
    b. decreased need noted _____
    c. no change in need noted _____

Now, we'd like to know about resources that help you work with limited-English speaking/non-English speaking communicatively disordered children.

14. If your employment facility offers inservice training to assist clinicians providing services for communicatively disordered limited-English speaking/non-English speaking children, is attendance:

    a. mandatory _____
    b. voluntary _____
    c. no such programs are offered _____

15. What types of resources do you know about and have you used to assist you in serving limited-English speaking/non-English speaking communicatively disordered children? (Check all that apply)

	Inservice Training Programs		Training Workshops		Printed Materials		Continuing Education Conferences	
	know about	used	know about	used	know about	used	know about	used
Work facility	___	___	___	___	___	___	___	___
National/regional/ state professional organizations	___	___	___	___	___	___	___	___
State department of education	___	___	___	___	___	___	___	___

16. Were there barriers to using resources that you knew about?

a. lack of funds _____
b. no time off from work _____
c. found out about them too late _____
d. other (specify) _____

17. What do you see as the primary needs of professionals who provide clinical services to communicatively disordered limited-English speaking/non-English speaking children?

_____

_____

_____

Finally, we'd like to know a little about you.

18. In the 1981-82 school year, or during the last 12 months, what was your job title?

a. speech-language specialist _____
b. severely language impaired specialist/teacher _____
c. audiologist _____
d. administrator/supervisor _____
e. other (specify) _____

19. What is your highest academic degree?

a. BA/BS _____
b. MA/MA _____
c. PhD/EdD _____
d. other (specify) _____

20. What types of credential/license/certificate do you hold? (Check all that apply)

    a. public school teaching credential (specify type) _____
       _____ Status: Clear ___ Emergency _____
    b. state licensure - speech pathology _____
    c. state licensure - audiology _____
    d. Certificate of Clinical Competence - Speech Pathology (ASHA) _____
    e. Certificate of Clinical Competence - Audiology (ASHA) _____
    f. other (specify) _____

21. Can you speak any language(s) other than English?

    a. yes (specify) _____
    b. no _____

If no language other than English, go on to Question 24.

22. Indicate your ability to use your other language(s).

	Full Fluency	Ordinary Conversation/ Simple Communication	Few Simple Words and Phrases
understand	_____	_____	_____
speak	_____	_____	_____
read	_____	_____	_____
write	_____	_____	_____

23. Where/how did you learn your other language(s)? (Check all that apply)

    a. acquired at home _____
    b. learned through high school courses _____
    c. learned through college courses _____
    d. learned living abroad _____
    e. other (specify) _____

24. What type of preparation have you had for providing bilingual special services to communicatively disordered limited-English speaking/non-English speaking children?

    a. college courses _____
    b. training workshops _____
    c. inservices _____
    d. other (specify) _____
    e. no special preparation _____

_____ I would like to receive a summary of the results of this study.

Name:
Address:

Appendix B

THE SURVEY OF SCHOOL DISTRICTS

In an effort to determine prevalence of communication disorders in LEP/NEP children, as well as resources available to speech-language clinicians at the local level, 8 school districts in the Los Angeles area were selected and personnel in charge of speech-language services were interviewed. The districts were ABC Unified, Fountain Valley, Huntington Beach Union High School, Irvine Unified, Los Angeles County, Los Angeles Unified, Ocean View, and Westminster. The major issues addressed were the following:

1. How many communicatively disordered LEP/NEP children are enrolled in the district?
2. What types of disorders do they exhibit and what are their home languages?
3. How many clinicians serve the communicatively disordered LEP/NEP population and what is their language background?
4. What kinds of support services do the districts provide to clinicians who serve communicatively disordered LEP/NEP children?

One of the districts would not participate, 2 others did not submit information in time to be included in these results, and complete information regarding all of the issues addressed by this survey was not obtained from any of the 5 remaining districts.

The procedure for this survey involved contacting district personnel in charge of speech-language services and conducting telephone interviews. Since much of the information requested required some research on the part of district personnel, follow-up phone appointments were made to gather data. Interviews with all districts included multiple telephone contacts: On the average, 5 conversations were held with each district. In some cases, 3 or more conversations were held with personnel in a single district prior to determining that requested information was not available. Overall, much of the data

requested regarding numbers of children, types of disorders, home languages, and clinician language status were not available.

In many cases, the districts did not know exactly how many LEP/NEP children were communicatively disordered since those children, although seen by the speech-language pathologist, also received other special education services. Other services may have been considered the primary handicapping condition; therefore, the children were counted under categories other than speech-language pathology. In other cases, since the children were part of a regular or bilingual education classroom and seen by the speech-language pathologist on a "pull-out" basis, they were counted as part of the regular or bilingual education ADA and did not show up in speech-language records. Further, most of the districts did not keep district-level records regarding type of disorder or home language of the children served. In one district, although communicatively disordered LEP/NEP children were dispersed throughout the district, most of those children were seen by two clinicians in specific school sites. Interviews with those clinicians showed that they did not know if particular children were truly limited- or non-English proficient, but, on the basis of surnames, estimated the numbers of children on their caseloads who might have been LEP/NEP. Five districts provided prevalence data for this survey. Given constraints mentioned above, district data suggested that communicatively disordered LEP/NEP children comprise less than 1% of the students enrolled in any district. Further, in 4 of the 5 districts, Spanish language children were most frequently represented in the communicatively disordered group. In the fifth district, Vietnamese children were most frequently represented.

In all districts, services provided to communicatively disordered LEP/NEP children were the same as those provided to monolingual English children and included diagnostic evaluation, remedial speech and language therapy, and special day classes for language handicapped children. In the case of special day classes, LEP/NEP children were placed in classes on an individual basis. No classes specifically for them were provided, although one district reported plans for starting

such a class in the future. Further, language of instruction in the special day classes was English in all districts.

All of the districts that participated in the survey indicated that communicatively disordered LEP/NEP children were seen by speech-language clinicians throughout the district and that they tried to have clinicians with non-English ability serve LEP/NEP children. But none of the districts had specific information regarding clinician language background. Further, even where districts indicated employing clinicians with non-English language knowledge, clinician report was the method used to determine ability levels within the language.

Regarding district resource support, all of the districts that participated indicated that inservices were provided on occasion, primarily addressing diagnostic issues. Some inservices attempted to increase clinician awareness of the problems of LEP/NEP communicatively disordered children, others addressed the issue of second language acquisition. All of the districts indicated offering release time and financial support for clinicians to attend conferences or workshops outside of the district. All of the districts also indicated the availability of interpreters, usually through the bilingual education program. Spanish interpreters were most frequently available, although the districts also had interpreters for Vietnamese, Chinese, Korean and Japanese. Interpreters for other languages were not always available. In general, people serving as interpreters were other school staff, parents, or members of the community.

This portion of the project yielded minimal data for the reasons just discussed. Although intended to obtain information regarding prevalence of communication disorders in LEP/NEP children, this survey did not achieve that objective. It may be that a district-level survey covering a broader range of services, such as the state-sponsored survey of all special education services provided to LEP/NEP children currently underway, may be able to address this issue more accurately.

Further, regarding determination of clinician language ability, new state credentialling requirements for providers of bilingual special education services (under SB 386) may encourage more objective measures in this area in the future.

Appendix C

RESOURCES

State and national professional organizations and the California State Department of Education were surveyed to determine the availability of resources to assist and support speech-language pathologists in providing services to communicatively disordered LEP/NEP children.

Professional Organizations

Professional organizations at the state and national level that speech-language pathologists were most likely to turn to for assistance in serving communicatively disordered LEP/NEP children as well as organizations concerned with bilingual education issues were surveyed to determine the types of resources available. A range of resources, including training institutes, shortcourses and printed materials, are available. The majority of resources provide information relevant to serving Hispanics, although some assistance is available for clinicians serving children from other language groups. The following listing of organizational resources is divided into two parts: The first presents resources available from state and national professional organizations; the second presents resources available from organizations concerned with bilingual educational issues in general.

I. State and National Professional Organizations

A. American Speech-Language-Hearing Association (ASHA)
10801 Rockville Pike
Rockville, Maryland 20852
(301) 897-5700

ASHA is the national professional organization of speech-language pathologists and audiologists and it offers a variety of resources to both members and non-members.

1. Brochures and Printed Materials: All brochures and printed materials are available from ASHA, Publication Sales.

a. 1982-83 Directory of Bilingual Speech-Language Pathologists (1982)

The Directory is a listing of all members of ASHA who have identified themselves as having foreign language skills. As stated in the Foreword: "The Directory was compiled from responses to the ASHA Annual Membership Update survey and a subsequent questionnaire of language proficiency. The language proficiency questionnaire required subjective self-evaluation of the level of foreign language fluency and ability to provide clinical services and/or interpreting in the foreign language. No objective measure of foreign language proficiency was utilized. The Directory is divided alphabetically by language, state and city within that state. Individual listings provide the following information: name, highest academic degree, address, phone number(s), level of foreign language fluency and special abilities, and area of clinical certification." Languages represented include Chinese, French, German, Italian, Japanese, Russian, Spanish, Arabic, Croatian, Danish, Dutch, Finnish, Greek, Gujerati, Hawaiian Pidgin, Hebrew, Hindi, Hungarian, Indonesian, Lithuanian, Latrican, Macedonian, Marathi, Marshallese, Norwegian, Pilipino, Polish, Portuguese, Swedish, Tahitian, Turkish, Ukrainean, Yiddish, and Yugoslavian. The directory is available for $3.50 for members and $7.00 for non-members.

b. How Does Your Child Hear and Talk?/¿Qué Tal Habla y Oye Su Niño?

This brochure is an English/Spanish publication designed to help clinicians answer frequently-asked questions about speech-language-hearing disorders. One-25 copies, free; 26 or more copies $.13 each.

c. Partners in Language: A Guide for Parents/Compañeros En El Idioma: Guia Para Los Padres (1981)

This is an English/Spanish three-booklet set covering language development and language stimulation for use with parents of communicatively disordered children. The three booklets are 'The Baby,' 'The Toddler,' and 'The Young Child' and are available for $7.50 for the set or $2.50 each.

d. Resource Guide to Multicultural Tests and Materials (1981)

This guide presents materials, including books, cassettes, study cards, catalogues, and tests, designed for use with language minorities. The guide describes materials and provides costs and ordering information. It is available for $1.85 for members and $3.70 for non-members.

2. Training

a. ASHA holds its national convention each November and several regional conferences throughout the year. These meetings feature shortcourses, workshops, and technical sessions as well as other types of information of interest to the membership. Many of the training opportunities address issues relevant to serving communicatively disordered LEP/NEP children.

b. The Bilingual Language Learning System (BLLS) and Institutes. BLLS is a project designed to improve quantity and quality of clinical service to Hispanic communicatively disordered children. In 1981, ASHA received funding from Special Education Programs, U.S. Department of Education, to develop a three-year project to meet the needs of speech-language pathologists and audiologists who are not prepared to evaluate and treat communicatively disordered Hispanic children. The Bilingual Language Learning System (BLLS) project was designed to produce a training manual for use in a series of two-day inservice training institutes. Curriculum for the institutes will include normative data regarding developmental sequences in Spanish and dual language acquisition; general assessment considerations and specific procedures; case selection criteria; intervention strategies including choice of language of instruction; and implications for education including cooperative interaction with other school professionals.

The intent of the project is to train bilingual/bicultural speech-language pathologists to train other professionals in university programs and in state education departments. During the first year of the project (August 1981-May 1982) a training manual was developed and primary training teams were selected. During the second year (October 1982-May 1983) institutes will be conducted in Arizona, California, Colorado, Florida, Illinois, New Mexico, New York, and Texas to train Hispanic bilingual/bicultural professionals. During the final year of the project, professionals trained in the second year will conduct institutes for monolingual professionals. Although

initially designed to meet the needs of clinicians serving Spanish-language children, principles of assessment and intervention developed for the Bilingual Language Learning System will eventually be extended and applied to other communicatively disordered non-English populations.

B. Bay Area Bilingual Speech, Language, and Hearing Association (BABSLHA)
3955 Greenwood Avenue, #2
Oakland, California 94602
(415) 482-3246

BABSLHA is a group of communicative disorders specialists with training and experience in the evaluation and treatment of communication disorders in children and adults from Spanish language backgrounds. Services provided include diagnostics, consultations, coordination of special services for individual needs, information on relevant educational activities, assistance with referrals to other professionals in educational and health fields, and recommendations for preventive measures to persons working or living with a speech, language, and/or hearing handicapped individual.

C. California Speech-Language-Hearing Association (CSHA)
2631 Capitol Avenue
Sacramento, California 95816
(916) 442-4544

CSHA is the state professional organization of speech-language pathologists and audiologists. The organization at large, as well as its regional divisions, conduct conferences and workshops on a variety of topics relevant to its members, and some programs that address clinical management of communicatively disordered LEP/NEP children have been presented. At the 1983 State Conference the following section meetings will be presented: "Assessing the Bilingual Child: Problems, Needs, and Strategies;" "Bilingual Assessment: Language and Phonology;" and "Phonology Assessment of Foreign Accent and Comparisons of Accent Patterns from Different Language Backgrounds." CSHA also offers a referral listing of members who have foreign language skills. The listing is compiled from self-reports as part of the annual membership update and the service is announced to the membership in the Association newsletter. Current listings reflect the following languages: Spanish, German, French, Yiddish, Italian, Russian, Hebrew, Korean, Chinese-Cantonese, Chinese-Mandarin, Portuguese, Yugoslavian, Norwegian, Hungarian, Vietnamese, Iranian, Hindi, Arabic, Japanese, Tagalog, and Sign Language.

D. The Council for Exceptional Children (CEC)
1920 Association Drive
Reston, Virginia 22091
(703) 620-3660

CEC, an advocacy group for special education, provides technical assistance and training for those involved with teaching exceptional children. Resources available include conferences, workshops, customized and on-file computer bibliographic searches, journals, and books. CEC's annual conventions offer a variety of sessions and workshops including many relevant to clinical management of communicatively disordered LEP/NEP children. CEC also sponsors topical conferences regarding culturally and linguistically different children: Culturally Diverse Exceptional Children (1973), The Exceptional Bilingual Child (1981), and The Exceptional Bilingual Child (1982). Papers presented at these conferences are generally available through the ERIC Document Reproduction service. At the most recent topical conference an intensive workshop entitled "Speech and Language Development: Pathology Services and the Bilingual/Bicultural Child" was offered and was designed to "improve evaluation and treatment of bilingual Spanish/English children; follow appropriate procedures for assessing the bilingual child's speech and language, make appropriate case selection decisions; develop effective intervention strategies for communicatively handicapped Hispanic children; and work more effectively with other professionals to improve the bilingual child's communicative and academic performance." Part of the workshop presented information from ASHA's Bilingual Language Learning System. CEC also offers information through 12 special interest divisions. The Division for Children with Communication Disorders is the special interest group most relevant to speech-language pathologists.

II. Organizations Concerned with Bilingual Education

A. California Association for Bilingual Education (CABE)
926 J Street
Suite 1207
Sacramento, California 95814
(916) 447-3986

CABE is the state affiliate of the National Association for Bilingual Education. As a resource for speech-language pathologists working with communicatively disordered LEP/NEP children, CABE primarily offers programs relevant to special education at its annual conferences. Some relevant sessions offered at CABE's Eighth Annual Bilingual Education Conference in January 1983 included "Second Language Acquisition vs. Language Learning," "First and Second Language Development: Similarities and Differences,," "Second Language Learning or

Language Disorders," and "BILP's for Language Minority Students in Special Education."

B. National Association for Bilingual Education (NABE)
1201 16th Street, N.W., Room 405
Washington, DC 20036
(202) 822-7870

NABE, a national advocacy organization for bilingual education, has 10 Special Interest Groups (SIG), one of which is concerned with special education. Among NABE's organizational goals are the provision of service to children and adults at all levels, the promotion of workshops and conferences addressing the needs of bilingual education, the promotion of research and professional competence in bilingual education. As a resource for speech-language pathologists working with communicatively disordered LEP/NEP children, NABE's primary function is to offer symposia, seminars, demonstrations, and workshops at its Annual Conference. Sessions relevant to speech-language pathology presented at the 1983 Annual Meeting included "International Baseline Data on Hearing-Impaired Children with Non-Native Home Languages" (Special Education SIG Featured Session), "Language of Instruction for Bilingual/Multicultural Special Education: Issues and Answers" (Special Education SIG Symposium), "A Model Program of Services for Special Needs Children from Bilingual Homes," (Demonstration), "Bi-Modal Language Acquisition" (Workshop), "Survival Lao for Teachers of Laotian Students" (Workshop), "Second System Code-Switching in a Hearing Two-Year-Old" (Paper Presentation), "Identification, Assessment, and Teaching Strategies for the Bilingual Exceptional Child" (Demonstration), "Non-Biased Assessment of Minority Children: Designing and Implementing Culturally Appropriate Diagnostic Prescriptive Models" (Workshop), and "Developing the Oral Language Competence of Learning Disabled/Hispanic Limited-English Speaking Youngsters" (Workshop).

C. National Clearinghouse for Bilingual Education (NCBE)
1300 Wilson Blvd.
Suite B2-11
Rosslyn, Virginia 22209
(703) 552-0710

NCBE is a federally funded clearinghouse on information relevant to bilingual education. As such, it provides a variety of services, primarily in the form of printed materials, including reference and referral services, computer searches, monthly newsletter, publications, information packets, coordination with other information resources technical assistance, and data base development and access.

State Department of Education

Resources to assist clinicians serving communicatively disordered LEP/NEP children are available from the Office of Special Education within the California State Department of Education. The activities of the Office of Special Education include personnel development and information dissemination through training workshops, institutes, and inservices and research commissioned by the Office through grants and contracts to other organizations. Some resources are available to clinicians indirectly, such as inservices conducted by the Office of Special Education and presented through local school districts. Others are available directly, such as state-sponsored training institutes open to individual clinicians.

Remediation issues of curriculum design and prescription are considered to fall within the domain of local school districts. As a result, state programs have primarily focused on determining numbers of LEP/NEP children in need of special education service and addressing diagnostic issues relevant to that population.

1. Special Education Resource Network (SERN)

The Special Education Resource Network system, under the Office of Special Education, operates as a resource service with 9 regional centers around the state. SERN gathers and disseminates information relevant to all aspects of special education including areas such as bilingual special education, assessment, parent training, program development and evaluation, and preschool services. The organization provides inservices and workshops and offers consultation to school districts on request. Three workshops available that are relevant to bilingual special education cover:

Module 1: Legislation and cooperative program activities for bilingual education and special education.

Module 2: Bilingual education and implications for special education; research results regarding second language acquisition and assessment.

Module 3: Teaching methodologies for bilingual special education students.

In addition, SERN does individual needs assessments to design inservices that meet specific district needs. In general, resources from SERN are indirectly available to clinicians through local school districts, but information regarding SERN's activities is available from the Office of Special Education, Personnel Development Unit (916) 322-4695.

2. Second Language Training and Assessment Institutes

The Office of Special Education offers inservice training opportunities directly to clinicians through summer training institutes. These institutes provide training to assessment personnel to improve second language proficiency, understand the culture of LEP/NEP students, and learn about assessment techniques and instruments for use with LEP/NEP children. State credentialed/licensed school employees such as speech-language pathologists, school psychologists, resource specialists, nurses, and bilingual educators are eligible to participate in the institutes. Information presented applies to Spanish, Cantonese, and Vietnamese speakers and covers intensive language study, assessment processes and procedures, conferencing, IEP's, cultural implications, and remediation and language of instruction. Training is individualized for participants and the overall goal is to certify bilingual special educators within the framework of SB 386 (certification of bilingual cross-cultural assessment competence for special educators). There are minimal fees for the institutes since participant costs are supported by state and federal resources, and the various programs range from 10 days to 6 weeks in duration. The program is announced through mailings to school districts and further information may be obtained from the Office of Special Education, Personnel Development, (916) 322-4695.

3. Research Support

The Office of Special Education has also commissioned several studies relevant to serving communicatively disordered LEP/NEP children. Studies completed include:

Dulay, H., Burt, M., & McKeon, D. Testing and teaching communicatively handicapped Hispanic children: The state of the art in 1980. San Francisco, CA: Bloomsbury West, 1980.

Twomey, S. C., Gallegos, C., Andersen, L., Williamson, B., & Williamson, J. A study of the effectiveness of various non-discriminatory and linguistically and culturally appropriate assessment criteria for placement of minority students in special education programs. Merced, CA: Planning Associates, 1980.

Studies in progress include:

"Language profile of bilingual students." Addresses normal language development of bilingual Spanish-English children to enable professionals working with these children to better determine their linguistic skills and plan more appropriate educational programs for them.

"Special education services for limited and non-English proficient handicapped students: State of the art and future directions." Examines current practices in the education of LEP/NEP handicapped children in the state of California with the expectation of making recommendations for improving service delivery systems.

Further, the Department of Education, in conjunction with the San Diego Lau Center, sponsored a statewide conference regarding bilingual special education. Presentations relevant to speech-language pathologists serving communicatively disordered LEP/NEP children addressed such issues as developing linguistically appropriate IEP's and distinguishing language differences from language disorders. Proceedings of the conference are to be published and information regarding the conference and its proceedings is available from the San Diego Lau Center, 6363 Alvarado Court, San Diego, CA 92120.

The Department has also compiled a directory of bilingual special education personnel based on self-reports of language ability by special educators. Information regarding the directory is available from the Office of Special Education.

The Department also sponsored the development of a training module, "Developing linguistically appropriate goals and objectives for LEP children," which addresses, in part, the difficulty in differentiating language disorders from second language development. This module is available free of charge to school districts from the Office of Special Education.

Appendix D

BIBLIOGRAPHY OF RELATED LITERATURE

The following bibliography was compiled from searches of the ERIC, ECER/EXCEPT CHILD, and LLBA data bases; searches obtained from the National Clearinghouse for Bilingual Education covering "Bilingual Special Education," "Exceptional Bilingual/Minority Students: Hearing and Speech Problems," "Non-verbal Communication and Bilingual/Non-English-Speaking Studnts," "American Indians and Bilingual/ Multicultural Education," "Chinese Bilingual Education" "Japanese Bilingual Education," "Portuguese Bilingual Education," "Bilingual Teacher's Language Background and Proficiency," "Bilingual Teacher Certification," "Legislation in Bilingual Education," and "Litigation/Court Cases in Bilingual Education;" and personal library research. Included are position papers, program descriptions, as well as research reports; and entries are primarily related to the practice of speech-language pathology with limited- and non-English-proficient communicatively disordered children.

A review of the literature listed here reveals few empirical studies and those reported primarily address assessment of communicatively disordered LEP/NEP children. Although the diagnostic issue is far from settled, future research should address, in addition to assessment questions, therapeutic questions such as appropriate language of instruction and effective techniques for remediating communication disorders in limited- and non-English-proficient children as well as second language acquisition/learning in the presence of conceptual language disorders. Further, although there is a paucity of research regarding clinical management of communicatively disordered LEP/NEP children overall, more information is available regarding Hispanic children than students from other language groups. Future investigations should, therefore, address the issues mentioned previously as they apply to all LEP/NEP children.

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